

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXXVII. No 22.
WEEKLY.

BALTIMORE, JUNE 21, 1900.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE
Manufacturers' Record Publishing Co.
RICHARD H. EDMONDS, President.
OFFICE: MANUFACTURERS' RECORD BUILDING,
BALTIMORE.

RICHARD H. EDMONDS,
Editor and General Manager.

THOMAS F. GRASTY,
General Staff Correspondent.

SUBSCRIPTION, - - - \$4.00 a Year.
TO FOREIGN COUNTRIES, - - 25s. 6d. a Year.

BALTIMORE, JUNE 21, 1900.

Time to Shut Up Shop.

Its achievements of the past week or ten days have demonstrated again the utter worthlessness to the country of the industrial commission appointed a couple of years ago under an act of Congress. If it was merely a matter of worthlessness the people of the country might not seriously object to the commission, but its sessions threaten to disturb the peace and prosperity of the country. No discretion seems to be exercised in the selection of witnesses to appear before it, and the idea seems to permit anybody to present statements, however absurd and valueless they might be. From the start the Manufacturers' Record disapproved of the idea of the commission, thoroughly comprehending the ulterior designs in its creation. Its membership includes a few men who are really desirous of using their position for the good of the country. They, however, are powerless to overcome the general purpose of the creators of the commission and the apparent general inclination of the majority of its members. One of the most notable freaks was its determination to investigate the servant problem. This determination was undoubtedly a result of a frantic casting about for material which may lead patient taxpayers to believe that the commission was seriously attempting to carry out the ostensible purposes of its creation. It may be suggested with propriety that the most profitable line of investigation to be pursued by the commission would be an effort to discover why its existence should be prolonged. The body has determined to take a few weeks' rest from its labors. Why not make the rest perpetual?

The announcement elsewhere in this issue that one of the largest square-bale cotton firms of Memphis, by reason of the increasing demand for round-bale cotton, has determined to become an active buyer of round bales is of general importance, as it will increase competition and thus insure to the farmer the highest possible price for his cotton. That the round bale has come to stay; that it is rapidly, by reason of its merits, becoming a power for good, and that its abuse by vested interests have, as is generally the case, reacted in its favor, are facts patent to every investigator. The action of

the Memphis house must be followed by others.

Developing the Warehouse System.

For several years the Manufacturers' Record has been vigorously urging the establishment throughout the South of bonded warehouses for storing cotton in order that the warehouse receipts might become gilt-edge collateral in the money markets of the country. The effort which we have made to awaken interest in this has brought about the establishment of a number of warehouses on this system, and has been already productive of great good. This is illustrated in the action of the meeting last week of the Georgia Bankers' Association, in which a resolution was adopted on the part of the bankers of that State to advance to the planters of Georgia three-fourths of the market value of their cotton, based on proper warehouse receipts as collateral. The liberality and enterprise of the bankers of Georgia last year contributed largely to the ability of the cotton-growers of that State to carry their cotton long enough to reap the benefits of the great advance in the price of the staple, and this year efforts are being made to still further broaden this work. The bankers justly recognize that much of their prosperity is dependent upon the prosperity of the farmer. What has already been accomplished may be repeated to the advantage of both classes, and what Georgia is doing should stimulate the people of the entire South. The bonded warehouse system ought to be established in every Southern State from Virginia to Texas, for not only would it furnish enlarged facilities for getting money on cotton at low rates, but many other interests would be equally benefited.

Testing the Boycott.

The recent convention in Baltimore of the National Association of Master Plumbers passed a resolution which has caused something of a sensation. Its publication and comments upon it seem to indicate a possibility, if not a purpose, on the part of the association of driving out of business plumbers not members of the association. Representative members have attempted to explain away the intent of the resolution by stating that its effectiveness is dependent upon coincident action by the dealers in plumbers' supplies. However that may be, the spirit of the resolution hinting at the absolutely un-American practice of the boycott is sufficient to arouse the attention of the country. There is a good deal of talk nowadays about the evils of the trusts. If the action of the Master Plumbers' Convention was as reported the association has apparently rendered itself liable to investigation by authorities sworn to execute the law of the land without reference to the rather hazy provisions of the so-called anti-trust law. In fact, the opportunity seems

to be presented for simultaneous action in many States to decide whether the boycott is legal. A settlement one way or another of this question would clear the industrial atmosphere and perhaps permit a reasonable solution of the labor difficulties of the country.

Faith in the South.

Persons who have the least doubt about the ability of the South to meet all the industrial demands upon it might do well to recall the indications of faith in its future given during the past three or four weeks by investors from beyond its limits and by those native to it. While that period has been marked by a steady advance in the diversity of undertakings on a comparatively moderate scale, it has been noted for the inception of several large enterprises which have attracted attention in many parts of the country. The growth of the textile industry, of course, maintains its importance in the public eye, which views with satisfaction the determination of the directors of the Lancaster (S. C.) Cotton Mills to build an \$850,000 addition to their plant, the erection of a \$400,000 mill at Jackson, Tenn., a \$450,000 addition for the Graniteville (S. C.) Manufacturing Co.'s plant, the erection of a \$250,000 mill at Indian Hill, Ala., and plans for \$100,000 mills at East Point, Ga., Covington, Ga., Roanoke, Va., and at other points. Most significant, however, probably, is the announcement of the location at Huntsville, Ala., of another mill to be erected by New England capital, which, it is understood, means an ultimate investment of \$2,000,000. Almost simultaneously comes the announcement of the decision by the Tennessee Coal, Iron & Railroad Co. to build a large steel mill and steel-rail mill at Ensley, Ala., at a cost of \$1,000,000, the successful blowing in of an iron furnace at Paducah, Ky., and the preparations for opening coal mines near Oneonta, Ala., with a daily output of 500 tons.

Other undertakings in Alabama include the development of 14,000 acres of coal land in Walker county, the building of lumber mills to utilize timber on 300,000 acres of land and the opening of coal, iron and pyrites lands in Calhoun county.

In Arkansas a \$25,000 company will develop 128 acres of zinc lands near Harrison, and another company will open near Huntington four coal mines, each of a daily capacity of 1000 tons.

In Georgia a shoe factory at Gainesville will increase its capacity from 1000 to 3000 pairs of shoes daily, and there is to be a \$75,000 woodworking factory at Savannah.

In West Virginia there is to be a \$2,000,000 steel plant and blooming mill at Benwood, a \$500,000 coal and coke company at Austen, a \$1,000,000 oil and gas company at Sistersville, a \$1,000,000 glass factory at Wheeling and \$100,000 coal and coke company at Welch.

A hosiery mill at Norfolk with a

daily capacity of 600 pairs, a \$175,000 wheel factory at Richmond, a \$300,000 coal and coke company at Abingdon and \$150,000 filter works at Norfolk are among the Virginia projects.

In Texas have been organized \$185,000 rice-milling company for Beaumont, \$150,000 saddlery company for Dallas and \$150,000 coal-briquetting company for San Antonio.

Cottonseed-oil mills representing investments ranging from \$100,000 to \$25,000 are to be built in Louisiana, Mississippi, North Carolina, South Carolina and Tennessee.

These are but illustrations of the general tendency of far-seeing men to invest their money where, under normal conditions, the largest returns may be expected. It rests with the South itself whether this inclination is to be encouraged or checked. The good business sense of the South ought to be sufficient to prevent a check.

The Voice of Southern Labor.

Progressive North Carolinians, as well as other Southerners of the same stripe, who are striving to insure to the rising generation of the South a full enjoyment of the industrial advantages native to that section, can have no sharper spur to action and no stronger argument in agitation than the statements in letters from mechanics published in the annual report of the North Carolina Bureau of Labor and Printing. Mr. B. R. Lacy, the commissioner of the bureau, follows a plan in preparation of his annual report of seeking to learn at first hand the condition of the workers of the State and their aspirations. The letters published this year are worthy of perusal at length, however one may dissent from many of the contentions advanced. It is impossible to reproduce in full the sixty pages in the report devoted to them, but a few extracts describing workers' conditions from the workers' standpoint may be practically suggestive. They are as follows:

Anybody that can knock a piece of work together, regardless of neatness, comfort or durability, and will work cheap, gets the work.

Few of the young care to learn a trade. Just as long as they can learn to build or patch up a boat or build a cheap frame building, that is all they care for, and a good mechanic is not appreciated.

Apprentices quit their trade and start up for themselves before they are workmen, and this fills the country with poor workmen.

There are too many inexperienced men employed as mechanics to make quantity or quality of work or wages satisfactory.

One of the greatest drawbacks in this country is the large number of men engaged in the different trades who know scarcely anything about them, and cannot do a decent job.

I think the main reason of low wages is simply this: The country is full of old and young men who claim to be workmen, but know very little about the trade they follow, and in order that they may get a job they will offer their services at about farm rates. This induces the builder or contractor to give them work, and the man who has mastered and ought to be well paid can't get a good job.

The possibly partial explanation of the neighborhood conditions thus described is offered in a statement by R. D. Wicker of Raleigh, who writes that most of the labor in the South before the war, mechanical as well as agricultural, was performed by slaves, and adds:

There is a great need of intelligent, systematic labor in the South, although our labor has kept pace with the demands of the times to a surprising extent, considering how it has been handicapped from one cause or another. At the close of the war most of our mechanics were negroes (taught trades by their masters), and the white mechanics in most mechanical branches were then, as now, placed at a great disadvantage.

Still he finds that while the Southern mechanic is not paid as well as his Northern and Eastern brethren, he generally realizes that Southern industries are yet in their infancy and is working to build up and not to tear down the social and industrial structure. The expansion of the cotton manufacturing industry in the South has done much to influence industrial conditions for the better. It has offered opportunities for making a living to thousands of persons who otherwise would have merely repeated the miserable existence of their fathers and grandfathers, and has at the same time been an efficient means for recruiting the ranks of skilled labor in one direction. The accretions to the South of large operations in iron, with the inevitable growth of minor industries dependent upon that form of manufacturing, are creating demand for skilled mechanics which the South ought to meet promptly. The material from which such mechanics are to come is plentiful. The South has a population large enough to meet all the demands for labor for an indefinite time. But, as is the case in all crucial periods, there is danger that energies may be misdirected and wasted by improper alignment. The great problem is to fit square pegs into square holes. It may be solved successfully, first, by a cultivation of a demand for thoroughness in all work; secondly, by counteracting the erroneous impression that ease and respectability are to be had principally in professional lines, and finally, by directing for a generation at least educational efforts toward training the hand to act intelligently.

In this connection the speech by President George T. Winston of the North Carolina College of Agriculture and Mechanic Arts before the State Bankers' Association at Greensboro last week should be read in full. Some extracts are peculiarly significant. He said:

North Carolina has every element of wealth excepting skilled labor and technical knowledge. It promises abundant raw material for varied and extensive manufactures; large water-power and convenient supplies of coal; easy access to the markets of the world; soils adapted to the production of all crops and the support of all animals essential to man's comfort and enjoyment; regular seasons with sufficient rainfall; forests of most useful trees, abundant and self-renewing; climate favorable to health, labor and economical living; population docile, intelligent, hardy and reliable. The only thing needed is skill and training, technical knowledge and machinery. Our boys and girls are growing up frequently, and too frequently, in ignorance, in idleness and in poverty. By training and education they would be converted into skilled workers and become wealth producers. Twenty thousand lads in our State today are earning less than fifty cents daily. With one year's training they might earn \$2; with four years' training the most talented and energetic of them might become engineers, chemists, architects or manufacturers, developing new industries, directing skilled labor and furnishing remunerative employment to thousands of workmen now idle or earning a mere subsistence. The negro boy in the South has

better opportunities for industrial education than the white boy.

He compared the provision made in North Carolina for industrial training with that made in other Southern States and in Massachusetts, and in conclusion said:

We are asserting Anglo-Saxon superiority and failing to provide the education necessary to maintain it. North Carolina should be the Massachusetts of the South. Her College of Agriculture and Mechanic Arts, rivaling the Massachusetts Institute of Technology, should train annually for the service of the State and the development of its resources thoroughly-equipped engineers (civil, electrical, sanitary, mining, mechanical and chemical), architects, chemists, agriculturists and horticulturists. By the side of this great college should stand a school for the manual training of skilled workmen—carpenters, bricklayers, plasterers, mechanics, machinists, electricians, boiler and engine tenders, dynamo tenders, dairymen, florists, gardeners and stock-raisers. When this is done we will say of North Carolina, not that she fills every blank in the census table, but that she produces a greater variety of raw material and manufactures it into more valuable products than any State in the Union, and that her people, adding to the blessings of nature the power of trained skill and technical knowledge, have provided for themselves and their descendants not only liberty and good government, but the highest average of health, wealth and happiness obtainable on the globe.

Hardly a month passes without evidence of the wisdom of the selection of Dr. Winston as president of the North Carolina institution. He neglects no opportunity to advance the interests of the college and to bring to the attention of men who are best able to assist him in the task the necessity for prompt and thorough provision for the industrial education of the rising generation of white boys in his State. He cannot speak too often from that text. Speeches of the kind should be made persistently in every Southern State from the Potomac to the Rio Grande until Southern men of means are aroused to practical action for the equipment of the South with its own suitable supply of trained workers.

Character the Basis of Success

The editor of the Manufacturers' Record is in receipt of a private letter in which reference is made to two men whose work for Southern upbuilding has attracted wide attention. The statements made in this letter as to the reason why these men have succeeded, namely, that their success is founded on the highest integrity and the broadest appreciation of the brotherhood of humanity, may justify the publication of an extract as pointing a moral which may well be studied by the young men of this country. From this personal letter we take the following:

The two most extraordinary men I have ever known are Arthur E. Stillwell of Kansas City, Mo., and John Skelton Williams of Richmond, Va. There are others who in the course of a lifetime have accomplished more than either of these young giants, but no two of whom I have any knowledge who have rolled such big stones up such steep hills at so early an age.

A great deal has, naturally enough, been printed concerning them both, but the real mainspring of their power has not so far been disclosed. They are both very strong physically, with nerves of steel. They are both quick to see situations and opportunities and discover the true proportions of men and things. Both are imbued with undaunted courage and indomitable energy. Both are capable of eighteen hours' hard work day after day, month after month, without showing any signs of flagging. Both are tremendously in earnest and incapable of turning back once their hands are laid to the plow. Both are the movers of men, prompters of thought, great persuaders and stubborn resisters. But it is none of these qualities that constitutes the mainspring of the strength of either of them. They constitute two of the finest types of Christian gentlemen to be

found among men, hewing to the line of conviction, living up to their principles, unswerving a hairbreadth by any possible temptation. Thus it is the moral character of these two men more than anything else which has enabled them to do the difficult things which have made them so notable.

I have been struck by one other characteristic which they have in common. Both are men of large human sympathies, so large that it would be a justifiable exaggeration to say that, great strong men as they are, their hearts are bigger than their brains and bodies put together, and that they have flowing in their veins more of "the milk of human kindness" than of healthy red blood. To have won either of them for your friend is better than to have found a new "big brother."

The Manufacturers' Record believes that such a tribute as this to moral worth as the reason for success justifies the publication of this strong eulogy, for it may teach a lesson which thousands of young men just coming into the field of human activities may take to heart and profit by.

Time for Serious Thought.

The Telegraph of Macon, Ga., in commenting on an editorial in the Manufacturers' Record, says:

This growing tendency to brand every corporation organized to develop the latent resources of the country as a wicked trust is not only becoming harmful, but ridiculous. Much of it is plainly nothing more than the twaddle of the outs against the ins, the envious denunciation of the successful by the unsuccessful, and the trooping demagogues find it convenient to play upon the unreasonable prejudices of the latter for selfish purposes. The result is harmful in the extreme to the community and the country as a whole. The wiser and truer friends of the South will not quarrel with the Manufacturers' Record for the following: "The cotton spinners of the South, at their annual meeting in Charlotte last month, unanimously decided that the time had come when the business men of the South should dictate to the politicians, and not permit the politicians to rule or ruin simply for their own personal greed and gain, and the whole South must follow this example."

Somewhat along the same line and worthy of the thoughtful consideration of every man is an editorial in the Galveston News, from which we take the following:

Bishop Fowler considers the newspaper a great moral force. As an exchange asserts, his recent remarks could be read with profit by those who are always ready with flippant and hasty criticisms of journalism. Bishop Fowler took the situation in St. Louis, where a strike exists and a large share of the people are terrorized by the trades-unions, as an illustration of the courage often shown by newspapers. Said he:

"In that beautiful, genial and social city, St. Louis, non-union men boycotted are so badly situated that even the restaurants dare not give them food, yet the great papers of that city strike right out from the shoulder against this sort of oppression, and I say it is heroic. Another fact about these papers is this: They unite without reference to party questions against improper and criminal officers and they praise the good without reference to party affiliations, and when I have said that I have said a great deal about great papers."

Speaking generally, the press of this country has not hesitated to condemn tyranny or outlaws of any kind. The Philadelphia Press notes a striking illustration in that city, saying:

"The high-handed course of the director of public safety, backed by the mayor of the city, has created a condition of things harmful to the good name of the city and perilous to the reputation of every self-respecting man in it. It is a situation which demands prompt and vigorous treatment in order that every citizen may see his duty clearly and be inspired to do it. To the honor of the newspapers of this city it should be said that with hardly an exception they have spoken out fearlessly and energetically. While their business interest would have led them in some instances to bow to the powers that be, they have preferred to incur official enmity rather than shrink their duty to the public."

If the public men of this country dared to display one-half the courage displayed by the press it would not be long before order

could be maintained even during a campaign year. One finds very few politicians who will dare under certain conditions to even declare themselves in favor of law and order. They wink at organized and open insurrection and lose no opportunity to condemn Mr. Cleveland, the judges or any sworn public official who dares to adhere to his plain duty in putting down here or there a reign of fire and blood. These are the men who are chiefly responsible for the mistakes and crimes of striking employees whom they have misled and encouraged. Much of the disagreement and disturbance between employer and employee now existing or which has heretofore existed in this country is traceable to the miserable demagogue who has not hesitated to interfere with business or even to encourage outlaws as a means of getting votes and winning offices. This is the truth, plainly told. Even the most violent striker, who has quit his place without excuse and who believes in the fire and fury method of meeting his competitor, is less to blame than the unspeakable demagogue who misuses his opportunity to advise and his power to lead as a means of bringing into trouble the dupes whom he would use in his business. He is the only man who derives any benefit from the anarchy which he encourages and promotes. He is the most dangerous of all our public enemies. The press and the people have spared him all too long.

In a letter to the Manufacturers' Record Mr. C. W. Petty of the Piedmont Iron Works, Greensboro, N. C., writes:

Please continue the paper, as we could not get along without it. We find it to be of great good to us in many ways. The Southern people should be grateful to you for the vast good you have done them through the paper and otherwise.

THE SOUTH'S NEW SPIRIT.

Meaning of the Recent Meeting of Cotton-Mill Men.

[R. H. Edmonds in New York Sun.]

The recent meeting of the Southern Cotton Spinners' Association at Charlotte was something of a revelation to visitors from other regions who had not kept in close touch with the spirit of the cotton manufacturers of the South, and the speeches made and the enthusiasm with which they were received indicated a revolution in Southern sentiment which has hardly been fully appreciated even by the South itself.

There were about four or five hundred cotton-mill men in attendance, representing the entire South, from Virginia to Texas. It was probably the most representative business body that has gathered in the South in the last quarter of a century, in that it represented to the fullest extent the rapidly-expanding cotton-mill interests of that region—the most far-reaching industry of the South. For two days from early in the morning until late at night the convention was busily engaged in discussing broad national questions that look to the upbuilding of American commerce and the expansion of Southern trade in foreign markets. These questions are tersely covered in a letter from D. A. Tompkins of Charlotte, one of the leading cotton-mill men of the South, in which, writing of the convention and its outcome, he said:

"The meeting of the cotton spinners and their guests represented interests that were more than interests local to Charlotte, more than Southern, and even more than American.

"All the old questions faded away under the influence of larger questions. The question of white supremacy in the South was lost in the sentiment favoring Anglo-Saxon supremacy in the world.

"The question of the competition of North and South in cotton manufacturing was lost in that of competition of America in foreign markets.

"The general plan of a canal across the Central American isthmus was reduced by resolution to the Nicaraguan canal in particular.

"The question of building the canal under a plan to fortify it as against a plan to neutralize it in war was decided in favor of the latter. National pride and loyalty naturally suggest the former. Progress and civilization force the conclusion in favor of the latter. Pride and loyalty were important instruments in Spain's fall. Progress and loyalty are the great factors in English progress.

"The cotton spinners favored the bill in Congress to provide for a commercial commission to visit the East and examine into the requirements of that country in matters relating to our manufactured products.

"It favored the shipping bill now before Congress commonly known as the Hanna-Payne subsidy bill. The resolution favoring this bill passed unanimously.

"It was not a meeting to let pass a motion that was not favored. The meeting was made of men who knew their minds and could speak.

"It was the meeting of meetings, representing the new and the old nationality. It favored the preservation of our new interests in the West Indies and in the East Indies. It forgot everything local and sectional and favored everything that was wholly national and wholly American."

Mr. Tompkins has thus tersely summed up the work of the convention, but even his letter does not give an adequate idea of the enthusiasm with which every speech advocating subsidies to American steamship lines, the building of the Nicaraguan canal and the maintenance of the open door in China and the retention of the Philippine Islands was received. To these broad propositions not a dissenting voice was heard, neither in the meetings of the convention nor in private.

The unanimity of sentiment on these questions was probably due largely to the fact that for a year or more the foremost cotton-mill men of the South, the men who are taking the lead in the creation of this giant industry, and others actively identified with Southern upbuilding, have, in public and private, in correspondence and by word of mouth, been advocating these policies. One speaker, in discussing the unification of American business interests, stated that for the first time since Washington occupied the presidential chair the President of the United States now represented a united country, not from the political standpoint, but from the business standpoint; that heretofore different sections had had divergent interests; that the legislative needs of Massachusetts had been different from the needs of South Carolina; that what the business men of an agricultural State like Texas had needed was different from what New York had required; but that now, with the development of the industrial interests of the South and the necessity for broadening foreign markets in order to enlarge the outlet for Southern cotton and cotton goods, the needs of South Carolina and of Massachusetts, of Texas and of New York were alike.

Another speaker, after reviewing the historic interests of the South fifty years ago in the development of American shipping as shown by the many conventions held looking to the upbuilding by government aid of a merchant marine, pointed out the fact that the unification of business interests, the rapid industrial development of the South and the better understanding which the North and South were getting of each other were beginning to eliminate the necessity which for thirty years had forced the people of the South to stand side by side for white supremacy in that region to the exclusion of all other questions, and that now,

"Thank God, the time is rapidly coming when the people of the South can differ on economic questions without being ostracized." This sentiment and all others along the same line were enthusiastically cheered.

John Barrett, minister to Siam under President Cleveland, told the story of the trade expansion which is now so noticeable in Oriental countries, pointed out the rapid increase in the exports to the East of Southern cotton goods and urged the importance of the maintenance of our control of the Philippine Islands and of the broadest development of our Eastern trade. Mr. Barrett's speech was received with the same enthusiasm which had marked every statement and suggestion on these subjects.

A general study of the whole convention impressed one with the fact that the cotton-mill people of the South with remarkable unanimity are determined, without regard to political affiliations or to the action of parties, to demand of their representatives the passage of laws for the development by subsidies of the American merchant marine, of the construction by the government of the Nicaraguan canal, of the maintenance of the gold standard, the preservation of our treaties with China, the vigorous prosecution of the Philippine war to a conclusion, the restoration of order in that territory by our government and the permanent control of the Philippine Islands.

The cotton manufacturing industry of the South is today the dominant business of that region. It is developing as no other industry in America has ever developed. It is recognized by the farmer as well as by the banker and the merchant as essential to the highest development of the commercial, financial and agricultural interests of the South. It represents an investment of nearly \$150,000,000 against \$61,000,000 ten years ago. In its growth the Southern farmer sees the creation of towns and cities which furnish a home market for all his diversified products and a home market for his cotton in competition with foreign and New England buyers, and always to his profit. The laboring element sees in the growth of cotton mills the rapid increase in the demand for operatives, so that tens of thousands of people who have heretofore been compelled to live in idleness by reason of the lack of employment now find steady and profitable work in cotton mills, while the merchant and the banker see in it a broad expansion of Southern trade and a vast increase in the wealth of this section.

The four or five hundred men at Charlotte, therefore, practically represented a greater influence for the upbuilding of the South than any other body of men which has been gathered together since the war ended. Over and over again in the speeches that were made the warning was given to politicians that the time had come when the business men of the South proposed to unite with the business men of the North in demanding legislation that would be to the best interests of the country without regard to what the politicians of either party might prefer. It was said that "if the politicians who represent us and who have so often misrepresented us do not give the legislation that is needed we will see that other men are elected in their stead." Coming in close touch with the delegates to the convention, both in the meetings and privately, the writer failed to hear one single word of dissent from the positions stated, and in this is found the most striking fact regarding the whole meeting.

The output in the Joplin (Mo.) district for week ended June 17 was 8,342,890 pounds of zinc ore and 882,440 pounds of lead ore.

THE IRON TRADE PUZZLING.

General Condition of Large Industries in Germany.

[Special Cor. Manufacturers' Record.]
Berlin, Germany, June 4.

The interest of the German iron and coal industries in the reports from those trades in the United States has continued unabated since my last letter to the Manufacturers' Record. Indeed, no other subject has so fully occupied the minds of German iron men, in particular, as the subject of American competition, and this is still more strikingly the case with speculators in iron and coal shares on the Bourse. Since the end of April, the date of my last letter, the decline in these shares has been very heavy, and anyone that has followed the daily stock-market reports will have noticed that almost the sole cause of this fall in values has been the fear of American competition in the world's markets. The market for coal and iron shares has tended upward or downward, according as the danger of American competition seemed more or less remote. It has become the fashion here for the "bears" to work the American alarm argument for all that it is worth, while the "bulls" meet them with excellent reports from domestic producing centers.

This attitude of stock operators is also reflected in the German iron and coal trades themselves, where opinions as to developments in the immediate future are very much divided, although the majority of producers remain in an optimistic frame of mind. Indeed, many large manufacturers of iron have come forward recently to try to reassure the stock-market operators that the danger from American competition is quite remote. There is, however, a different opinion widely held in the trade. The Centralblatt der Walzwerke, the organ of the German rolling mills, says in its latest number: "In agreement with the opinions of experienced experts we have held fast to the view that the now actually bad conditions prevailing in the American iron and steel market must be observed by the German iron industry with the greatest attention." It is not the importation of pig-iron from America in large quantities that this organ fears, but "what comes most into consideration for Europe is the competition of America in iron and steel manufactures and half-finished goods. The same is true of American competition in railway materials, which is already felt in the overseas markets of the European iron industry. In emphasizing these facts we only point out actually existing facts."

There has been much said, too, about the possibility of American coal coming into competition with German coal here in Germany. According to one report a shipment of American coal was made up the Rhine as far as Bingen, where it was sold at a figure above the price of the native article, but it was frankly admitted that the American coal was better than the German. Then came the Cologne Gazette with a calculation that seemed to exclude American coal from all consideration for the German market, since, according to its figures, a 10-ton carload of American coal at Ruhrort would cost 308 marks, whereas the price for German coal is only about half as much. The manufacturers of Dresden, too, have recently held a meeting and decided to investigate the question of importing American coal.

The coal famine, while not so acute as two months ago, has not yet been relieved. This fact is all the more remarkable in view of the increased output of the mines this year. In the Upper Silesian district the shipments now average 14 per cent.

above those of a year ago, and in the great Westphalian district the shipments are also heavier than last year. The same is true of coke, in which the scarcity is still so acute that many blast furnaces are using foundry coke. The strength of the general coal situation is shown by the fact that an advance of prices in some grades has just been made in the Saar district and in Saxony. In Upper Silesia a price advance for coking coal has also been made, taking effect on July 1.

The situation in the iron trade is somewhat puzzling. The market reports are themselves in a measure conflicting. Several cases have been recently reported where old rails and other old materials have been sold at prices ranging from 20 to 30 per cent. below last year's price. It is stated, however, that this phenomenon is to be explained by the fact that dealers had been accumulating old material for some time as a speculation; then as their supplies grew too heavy and the hopes of still higher prices vanished, the corner was broken and prices fell violently. This is but an eddy in the general current. On the other hand, it has just been reported that a 7000-ton lot of pig-iron, which unexpectedly became free for 1901 delivery, was bought up by a large West-German dealer at the highest market price. There are, however, some rumors in the trade that pig-iron has been offered at prices lower than the quoted prices. There are some reports, too, as to price concessions in girders, but none of these reports seem to have been verified. Over against such reports, however, it must be stated that the situation in the German iron trade has improved within the past two weeks; the fright over American competition has been calmed in a measure, and the course of trade has caused a renewal of confidence. From Silesia even an advance of some iron prices is reported. The entire pig-iron production of Germany is about sold out to the end of 1901, and the rolling mills in the Siegen district report that their contracts extend to a year hence.

The market has been much encouraged, from the stock-dealers' standpoint, by the publication of reports that show that many companies have been operating at a much higher profit than last year. The Laura Company of Silesia recently published its report for the March quarter, which showed earnings of 2,652,766 marks for the quarter, against 2,001,676 marks last year. Estimates of dividends for the year ending June 30 are now being given out, and many works report greatly-increased earnings. Thus the Iron Industry of Menden and Schwerte will declare a dividend of not less than 14 per cent., against 6 per cent. last year, and the Rombacher Works will pay about 20 per cent., against 15. That the stock market still remains weak in the presence of such figures is quite remarkable. That weakness is the best illustration that can be offered of the view taken here as to the threatening danger from America. The public has become thoroughly frightened, despite the reassuring words of the iron men, and the tendency now is to close out engagements in iron shares and to invest the proceeds in government funds.

Another thing that has weighed heavily upon the stock market is the increase of taxes upon sales of shares and bonds, which the budget committee of the Reichstag has decided upon for meeting the expense of increasing the navy. In the United States we have enough of hostility to capital, and particularly to stock and produce exchanges, but with us the people representing these ideas have as yet been unable to realize their plans of forbidding dealings in futures or whatever else they wish. In Germany the opposition to stock and produce exchanges is stronger,

and anti-capitalistic legislation directed against them has been in force for some years. Not only is their stamp tax upon all new issues of stock, but every sale of stocks or bonds on the exchanges requires a stamp. The effect of this legislation has been to divert a large part of German speculative operations to the London Exchange, as the Bourse authorities here have recently pointed out to the Reichstag committee. The committee, however, refuses to be convinced and insists upon adding 50 per cent. to the stamp upon sales, also upon increasing the stamp upon new issues.

Various movements looking toward the organization of syndicates are now on foot in Germany, while others have just been perfected. The two organizations in the sugar industry, that of the raw producers and that of the refiners, have organized a general syndicate of the sugar industry, which went into operation on June 1. The manufacturers of colored cotton goods have just held a meeting here for the purpose of arranging for a considerable increase of prices. The manufacturers claim that the increase is rendered necessary to compensate them for the increased cost of cotton, fuel and other material, as well as wages. The manufacturers of sheet iron are arranging to get together, and a general rolling-mills syndicate is also being negotiated. This does not exhaust the list.

It is well known that the German shipbuilding industry has made enormous strides forward during the past ten or twenty years. The German shipbuilders are now so confident of their case that they claim to build better ships than the English themselves. They admit that ships are built somewhat cheaper in England than here, but they claim that the English do not use such solid materials as the Germans. Great as has been the progress here, the German output of ships remains far behind that of England. In England last year the launchings amounted to 1,414,000 register tons, while those of Germany were only 218,000 tons. The output in the United States is given here at 267,642 tons, and a leading German paper has just admitted that in some respects the American shipbuilders have made greater technical progress than those of Europe. The German yards are constantly increasing their capacity. The great Stettin "Vulcan" Company is about to increase its yards to an extent that will require some 5,000,000 marks of new capital. The Flensburg Shipbuilding Co. has just decided to add an entirely new yard to its present plant.

Germany's output of pig-iron in April was 680,159 tons, against 666,625 tons in April, 1899. The output in March was 694,650 tons, but the daily production in April was greater by 264 tons than in March. The output for the first four months of the year, however, was slightly less than in 1899, having been 2,654,028 tons, whereas the production in the corresponding months of 1899 was 2,658,443 tons.

WILLIAM C. DREHER.

EXPORT SHIPMENTS FAIR.

Irregularity in the Iron Market at Birmingham.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., June 19.

It has come to pass that accurate information of the iron market is very hard to obtain. The prices quoted for the public obtain for small lots and hurry orders. But there are instances where prices are considerably shaded. Now, as to what constitutes market price—outside or inside price—each must judge for himself. No. 2 foundry is quoted at \$16 to \$16.50, and it has brought that price. It has also sold as low as \$14.50, and at

that price turned over at a profit. No. 3 foundry in a small way has sold at \$15, and gray forge at \$14 and \$13.50. But there is so little trade in iron that quotations cut no figure. Sellers are not falling over each other in efforts to sell, but are simply taking what comes to them at their price. There are outside holders; there are furnaces whose brands are not established, who, in their anxiety to clean out, take the best offer. In the present condition of the market this best offer isn't the highest price of the market. The figures given indicate the great irregularity of the market. The export shipments are fair, one firm sending out the past week close to 5000 tons, but it was on orders previously registered. Fresh business is scarce. But little ocean room was offered, and that, together with the unsettled condition of the market, is a cold blanket on that trade.

The Bessemer furnaces of the Tennessee Coal, Iron & Railroad Co. are banked, waiting the outcome of a strike among the common negro labor around the stock-houses and furnaces. They have been organized but a few months, and this is their first public appearance as strikers. They have been receiving \$1.25 to \$1.50 for a day's labor, with pay-day once each month. They now demand an increase of ten cents per day and pay-day twice each month. The Tennessee Company has refused to grant their demands, and the fight is now on. They could not have selected a better time for the company for making their demands, and they will return to work on old wages or not at all.

The convocation of miners is only a few days off. A considerable number of the delegates are uninstructed. Some are yet to be elected. But their policy when formulated will be supported by the delegates as one solid body. The mine operators have issued a call for a meeting of the coal-mining interests, which, it is understood, is not to antagonize the miners, but to facilitate efforts to an agreement by making uniform prices and having unity of action. The coal trade never was better, for the season, than it is now. But the miners are getting the maximum agreed upon for their labor. It would be unfortunate if fresh demands disturbed the present status.

The reported sale of 100,000 tons of coal to a large German steel firm at \$2.50 on vessel at Pensacola is received with only incredulity here. In the first place, the firm mentioned is unknown to both the iron and the coal trade here. It is also unknown to our banks, and not one of them carries an account with any such firm. In the third place, neither of the commercial agencies here has been able to locate any such firm, though inquiries from other places have stimulated their investigation. In the fourth place, the possibility of obtaining ocean tonnage for such an order is so remote that no sane man would take it. In the last place, the price named is of itself an embargo on the business. But three companies, so far, in this district are mining coal that is suitable to the German market. None of them know anything of this 100,000-ton order. So it is safe to conclude that there's nothing in it.

The contract for building twenty miles of the Ensley Southern Railroad was let last week to Oliver & Co. at a price approximating \$500,000. This leaves only about nine miles between the Big Warrior and Little Warrior rivers to be let. Running from Ensley City to Parrish, the southern terminus of the Alabama Northern Railroad, it gives an inlet to both the Louisville & Nashville Railroad and the Southern Railroad into territory rich in coal and minerals, and so far undeveloped, and each can make all desirable

connection with its system at least expense. It will be a loop for each road. Mines are being located along the line, and preparations are being made to open them soon as profitable. This road about completes the chain of connections that were necessary to put all parts of the district in close connection.

Another hotel company has been formed with \$150,000 stock and \$150,000 bonds to erect a 10-story structure. Its projectors say it is a certainty. The improvements projected here and under way will cost into the millions.

J. M. K.

DEMANDS FOR IRON.

Review of the Recent Activity in American Industry.

Mr. James M. Swanik, general manager of the American Iron and Steel Association, in his report on the iron trade for 1899, traces the origin and development of the present era of industrial prosperity as follows:

"In our last annual report the immediate and the direct causes which had been instrumental in restoring prosperity to our country were stated with sufficient fullness. They included the large exports in recent years of our agricultural and manufactured products, the practical cessation of the shipments of gold abroad and the increase in our imports of gold, the stimulating influence of the Spanish war, the increase in the circulation of money and the right settlement of the tariff question in 1897 by the passage of the Dingley bill. To these favorable influences must now be added the passage of the currency bill, which was approved on March 14, 1900. But what remote causes have operated to create our own prosperity and the world-wide prosperity of the last few years? European countries have been relatively as prosperous in recent years as the United States. Indeed, the boom in American industries in 1899 followed active markets and rising prices in the leading European countries. And then, again, why was so much iron and steel needed in Europe as well as in America? These questions are more easily asked than answered.

"Undoubtedly the great increase in the last few years in the world's supply of gold and its conversion into a circulating medium must be credited with a stimulating effect upon business generally in all progressive countries. Perhaps the absence of destructive European wars for nearly thirty years is a prime cause of the world's prosperity, for this freedom has promoted the welfare of European countries which are large consumers of agricultural and manufactured products, and it has led enterprising nations to develop the resources of less favored and even benighted people. The strengthening of the protective policy in many continental countries in the last thirty years has surely had a beneficial effect upon the industries of those countries. Their people have not only been generally employed, but they have received higher wages than formerly.

"Without indulging in further speculation upon the broad question of the world's prosperity in late years, we can probably indicate with more certainty the leading causes of the increased consumption of iron and steel by other countries as well as by our own. The enlarged use of iron and steel in shipbuilding and bridgebuilding is one cause. The increasing use of steel in the construction of public buildings and private dwellings is another cause. The magnitude of this latter use has only recently been recognized. In the United States we have commenced to substitute steel cars for wooden cars on our railroads, and in this new use of

steel we find another cause of the present activity in the iron and steel industries of our own country. We are also now making our own tinplates.

"The various uses to which electricity has been applied in late years, the water supply of cities and all kinds of engineering enterprises have also greatly increased the demand for iron and steel in all countries. Lastly, a new era in railroad building has commenced in Russia, the United States and some other countries, the great Siberian enterprises of Russia alone calling for immense quantities of railway material."

Jones & Laughlins, Limited.

The annual meeting of Jones & Laughlins, Limited, operating the American Iron and Steel Works at Pittsburg, was held in that city on Monday, June 4. The older members of the limited partnership will hereafter form an advisory board of five, newly created, while younger members take charge of the active management of the extensive interests of the firm. The advisory board, created at the meeting, is composed of Benjamin F. Jones, Henry A. Laughlin, George M. Laughlin, James Laughlin, Jr., and Benjamin F. Jones, Jr. A board of managers is made up as follows: Benjamin F. Jones, Jr., chairman; Willis L. King, vice-chairman; Irwin B. Laughlin, treasurer; William C. Moreland, Jr., secretary; William L. Jones, general manager; Chas. C. Briggs, James B. Laughlin, Roland Gerry and Thomas O'C. Jones. In addition to this board, Thomas K. Laughlin is assistant treasurer. On April 1 Jones & Laughlins, Limited, took over Laughlin & Co., owning and operating the Eliza blast furnaces, the two firms always having been allied, but operated separately. In this change the capital stock of Jones & Laughlins, Limited, was increased to \$20,000,000, which more nearly covers the actual values of plants and business than the combined capital stock of the two limited partnerships and their subsidiary interests. In this combining of interests Jones & Laughlins acquired the holdings of Laughlin & Co. in the Lake Angeline Iron Co., the Monongahela Connecting Railroad and some smaller properties. The capital stock of Jones & Laughlins, Limited, had been \$4,000,000, and that of Laughlin & Co. \$1,000,000. Benjamin F. Jones of the new advisory board was chairman of Jones & Laughlins, Limited, and the founder of the business. Henry A. Laughlin was chairman of Laughlin & Co. George M. Laughlin was vice-chairman of Jones & Laughlins, Limited. James Laughlin, Jr., was secretary and treasurer of Laughlin & Co. Benjamin F. Jones, Jr., was treasurer of Jones & Laughlins, Limited. Willis L. King was secretary of Jones & Laughlins, Limited. Irwin B. Laughlin, the treasurer of the reorganized company, was an assistant of the executives without special title. William C. Moreland, Jr., the new secretary of the company, was the auditor of Jones & Laughlins, Limited. William L. Jones, general manager, has held that position and title in relation to Jones & Laughlins, Limited, for some time. Charles C. Briggs and Roland Gerry have been leading factors in the sales department of these interests. James B. Laughlin has been identified with the management of the blast-furnace operation of the combined interests, and Thomas O'C. Jones has been manager of the Soho mills. The latter four will continue in practically the same relations as members of the board of managers. The changes in the officers of the company will entail some changes in heads of departments, but no radical changes are contemplated. The new limited partnership of Jones & Laughlins,

Limited, continues under the articles of copartnership of the firm of the same name, who took over the allied and subsidiary interests on April 1. With improvements under way at the Eliza furnaces the firm will soon be producing at the four furnaces of this group 2400 tons of pig-iron daily, besides 300 tons at the Soho furnace. At the present time the firm turn out about 2000 tons of steel daily in the Bessemer and open-hearth plants, but this capacity is being increased to take in the entire production of pig-iron and possibly more. New continuous mills have been added to the South Side plant. Jones & Laughlins, Limited, were incorporated in 1883. The American Iron and Steel Works were built in 1852. Nearly a half-century ago the firm was Jones & Smith, and subsequently the Laughlins entered the firm and later took up the interests of Benjamin Lauth, who died years ago. Benjamin F. Jones, Sr., was the senior partner of the firm of Jones & Lauth, and this firm was the first in the world to produce cold-rolled steel over forty years ago, and was also the first to operate three-high rolls.—Iron Age.

Focused on the South.

[Special Cor. Manufacturers' Record.]
Chicago, Ill., June 18.

As Chicago's great business searchlight becomes more vividly focused on Southern trade many new demands are brought into popular view, and a vast and profitable industrial field is presented for business opportunities. The center line extends to Cuba, with sidelights at Port Arthur, Baltimore and Newport News.

The Northwest has become an extensive manufacturer of all kinds of iron and metal-working machinery, and an enormous business has grown up in the production of electrical equipments and supplies. Chicago is now celebrated as a leading manufacturer in both lines. This city is also noted for its extensive producers of mining machinery, three of the largest plants of the kind in the world being located here—Fraser & Chalmers, the Sullivan Machinery Co. and the Gates Iron Works. They have built much of the heaviest and best equipments now in use in South Africa, and are devoting close attention to the demand in the Southern States for gold and coal-mining, rock-crushing and pulverizing machinery and supplies.

As Southern foundrymen and iron-workers progress in the line of metal-working Western manufacturers of machine tools are finding an increased demand for supplies in their line. A leading Chicago house now doing a good business among the tool users of the South is that of Charles H. Besly & Co. They report a good trade from that territory; also that it has shown great improvement this year. This firm is one of the very best of its line in Chicago, and holds a most prominent position as such throughout the West.

I am glad to see these old-established houses taking a profitable hold in the South. They are not only splendid agencies for supplying that part of the country with what it needs in the way of the most improved machinery and tools, but are also consumers of Southern materials such as enter into their manufactures. A comparatively new seeker after Southern business has entered the field, in the most part within the past year, J. J. Ryan & Co., the largest brass founders and finishers in the West. They have been supplying Southern manufacturers with babbit metal and certain specialties for a long time, but are now giving especial attention to orders for brass, bronze and aluminum castings. They are well known

for honest dealings, and fully prepared for prompt filling of contracts.

My observation has been that where a manufacturer has made a fair test of the Southern market he has found it profitable. As an example, a Chicago manufacturer of hardware specialties told me two years ago that he could do no business in the South; that no trade existed in his line; dealers were slow pay and did not protect their credit with sufficient promptness. Shortly afterward he received incidentally an order from Alabama and made a visit to that State in connection with it. He was pleased with the trip, and liked the people with whom he came in contact. The outcome has been that, by paying attention to the Southern field, he has received over \$10,000 worth of orders from Tennessee, Mississippi and Alabama alone within the past twelve months. He has since made other trips, going as far as New Orleans, and now takes pleasure at every opportunity in telling his friends that the South, in his estimation, is a great country with a splendid future. H.

Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]
New York, N. Y., June 21.

Scrap and old iron and steel rails have all collapsed, but some big dealers are laying their lines to accumulate all the good scrap, especially steel, that they can get at prices that are likely to prevail this summer. Their opinion is that scrap will be higher in autumn. Business in a general way is quiet. Our coal exporters are receiving good orders and inquiries from abroad.

The lead market is quiet, owing to unsettled conditions. Desilverized is 3.73 and corroding 3.90 in 50-ton lots. The market is in worse shape, in fact, than for months. The idea of reducing prices was to satisfy consumers and induce them to buy. The last reduction of 12½ cents per 100 pounds was evidence to consumers of the weak condition of the smelters. Receipts during the past week 29,625 pigs, against 19,010 pigs the previous week. Receipts since January 1 668,170 pigs, against 717,594 pigs same time last year. Shipments since January 1 486,558 pigs, against 561,941 pigs same time last year.

The Iron and Metal Trades.

[Special to Manufacturers' Record.]
New York, N. Y., June 21.

In its review of the market the Iron Age says:

"Prices are rapidly being adjusted to the conditions now governing the iron trade. A notable occurrence in this line is the reduction made in the past week of \$7 per ton on beams and channels and \$9 on angles, which was announced on Friday. The makers of structural shapes had been rather conservative in making advances during the boom, and did not put their prices as high as other manufacturers of finished products, but they have wisely decided not to attempt to resist the general downward movement now in progress. Thus branch after branch falls into line with prices on a lower level. Those governed by associations or by trade agreements are yielding to the inevitable as well as those in which competition has been free and unrestrained.

"Prices on articles not largely controlled by associations or agreements are now becoming more difficult to quote than some time since. This is because manufacturers are making more strenuous efforts to market their products. Stocks have of late been accumulating too rapidly. Transactions are therefore more numerous, but as these are made at special prices, both sellers and buyers are endeavor-

ing to keep them quiet. It is known that a number of manufacturing concerns are feeling much more comfortable with regard to business booked than some time since. Quite a considerable quantity of business has also been taken for export, not only in pig-iron, but also in steel products. The efforts thus being made to relieve the congestion both in domestic and foreign markets are expected, in connection with other developments, to bring about quite a change in the situation.

"A movement is now on foot to secure an agreement among the furnaces making foundry and forge pig-iron to blow out enough furnaces to take at least 25 per cent. of the present production out of the market. A general shutdown of rolling mills is also expected about July 1 for at least two weeks. The shutdown may possibly continue much longer. No wage scales have yet been settled for the year beginning July 1, and under the agreement with the Amalgamated Association the mills are only permitted to run for a very short time after June 30 in order to close pressing contracts.

"The opinion is gaining ground now that prices are down pretty close to a basis which will be considered fairly safe by consumers. They are disposed to cover their requirements whenever they can secure special inside rates, finding that contracts taken for their own products will enable them to make a profit when material can be secured at these special prices.

"Open quotations may still be subject to reduction in order to conform to the special rates now being made. The decline, however, is evidently getting close to its limit under present conditions when steps are being taken in so many directions to decrease production.

"The metal markets are dull and drooping in sympathy with the unsettled condition of the iron trade."

The Mineral Industry; Its Statistics, Technology and Trade in the United States and Other Countries to the End of 1899. Edited by Richard P. Rothwell, Editor of the Engineering and Mining Journal. Publishers, the Scientific Publishing Co., New York and London. Price, \$5.

This publication condenses within less than one thousand pages the results of co-operative investigation by distinguished scientists in this country and abroad, aided by thousands of producers who have furnished statistics of their outputs and by many persons prominent in various branches of the mineral industry who alone can give special information. Officials of railways in the United States and Mexico, State geologists, commissioners of mines and inspectors of mines, statisticians of foreign countries, officials of the United States government and professional men and experts of the whole world have rendered valuable assistance. A feature of the volume is the fact that the figures previously reported for 1898 have been revised in the light of later and more minute investigation. It is recognized that no statistical reports of this nature are absolutely correct, because of the practical impossibility of obtaining reports from all producers in some extensive and greatly sub-divided industry. But in the mineral industry the commendable practice is followed of correcting figures previously reported whenever mistakes are subsequently discovered, thus securing the best results. In addition to the record of progress in the various minerals the volume contains special chapters on progress in electro chemistry, on local air, on the progress of metallurgy, on mine-timbering, on ore-dressing, with a review of the literature on ore-dressing in 1899, the mining stock exchanges in 1899, mineral statistics of foreign countries and a summary of the mineral imports and exports of the United States.

FOREIGN TRADE.

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

TWELVE MONTHS' COMMERCE.

Official Estimates of the Increase During the Fiscal Year.

The commerce of the United States in the fiscal year which ends with this month will by far exceed that of any preceding year, according to estimates by officials. Its exports will surpass those of any earlier year by more than \$150,000,000, and its exports of manufactures will exceed those of any preceding year by more than \$75,000,000. Its imports, owing to the demands of the manufacturers of the country for foreign raw material for use in their industries, will also be large. Raw silk, unmanufactured fibers, crude rubber, hides and skins, pig tin for use in tinplate establishments, cabinet woods and the finer grades of cotton and the coarser grades of wool all show a large increase as compared with preceding years. The value of unmanufactured silk imported will be nearly 50 per cent. in excess of that of the preceding year, and more than double that of the fiscal year 1897. Raw cotton shows an increase in quantity of 50 per cent. over 1899; unmanufactured fibers an increase of 25 per cent. over 1899 and 100 per cent. over 1898, and hides and skins show an increase of 25 per cent. over 1899 and 60 per cent. over 1898.

It is on the export side, however, that the year makes its greatest record. The total exports for the eleven months of the year amount to \$1,286,214,534, and should the June figures prove as large as those of May, which are just received, it would bring the total up to \$1,400,000,000, or \$173,000,000 greater than the banner year, 1899.

As to the details of this wonderful year, every class of articles shows an increase. Manufactures, as already indicated, will show an increase of more than \$75,000,000; products of agriculture will show an increase of nearly \$50,000,000; products of the mine an increase of nearly \$10,000,000; those of the forest about an equal sum; fisheries are \$2,000,000 larger than last year, and the miscellaneous class shows a marked increase. Probably the largest increase is in manufactures of iron and steel, though cotton will show a considerable increase, owing to the marked advance in price. Nearly all grades of manufactures of iron and steel show an advance. Steel rails in the ten months ending with April, 1900, increased from \$4,500,000 to \$6,500,000; structural iron and steel, from \$1,350,000 in the ten months ending April, 1899, to \$2,076,000; wire, from 160,000,000 pounds to 198,000,000 pounds, the increase in value being from \$3,000,000 to \$4,951,000, the advance in price being much greater than that in quantity, and this is true in nearly all grades of iron and steel exports. Builders' hardware increased from \$6,332,000 to \$7,888,000; railway engines, from \$3,798,000 to \$4,805,000; wire nails, despite the large increase in price, more than doubled in quantity of their export, the total number of pounds in the ten months ending with April, 1900, being 77,592,000, against 37,336,000 a year earlier. The total exports of manufactures of iron and steel will be about \$120,000,000, or more than 20 per cent. in excess of last year, despite the frequently expressed fear that the advance in prices would cause a reduction in exports.

Other lines of manufacture show a large advance. Leather and its manufac-

tures show an increase from \$19,000,000 to nearly \$23,000,000 during the period under consideration, and mineral oils an increase from \$40,000,000 to \$56,000,000, though this increase is chiefly due to the advance in price, the quantity exported in the ten months ending with April, 1899, being 650,000,000 gallons, and that for the ten months ending with April, 1900, 684,000,000 gallons.

Galveston's Export Trade.

As an indication of the expansion of export trade at Galveston, Texas, a recent statement has been prepared by Messrs. Fowler & McVitie, prominent shippers of that city, of their last year's business. The statement shows that the firm exported 440,074 square and 48,341 round bales of cotton. Of grain the statement shows 3,839,466 bushels handled by the firm; of cottonseed cake and meal, 65,071 tons, and of coal, 112,461 tons.

The itemized shipping list shows that the firm sent as many steamers to Manchester as to Liverpool—17 going to each port—6 to Havre, 6 to Bremen, 8 to Antwerp direct, 1 to Antwerp, Genoa and Ghent, 1 to Antwerp, Ghent and Abo, 1 to Antwerp and London, 10 to Hamburg, 1 to Hamburg, St. Petersburg and Reval, 5 to Hamburg and Reval, 1 to Hamburg, Reval and Abo, 6 to Rotterdam direct, 1 to Rotterdam and Reval, 1 to Rotterdam, Reval and Ghent, 1 to Bristol via New Orleans, 1 to Dunkirk, 1 to Vera Cruz, 5 to Kobe and Yokohama, Japan; 4 to Marseilles, 1 to Crette, 1 to Progresso and 14 to Havana. In addition, 7 cargoes of crude horns were shipped to New York—6 in schooners and 1 in a bark.

The diversity of the exports of Galveston is well shown in this itemized shipping list, the cargoes including wheat, corn, bran and meal, cotton, cotton meal and cotton cake, oil in barrels, lumber, logs, flour, spelter, pork and hams, Sea Island cotton, boards, skins, zinc ore, fescue seed, shoe machinery, rice polish, staves, dried grain, rolls of wrapping paper, cattle, horses, mules, hogs, sheep and borax.

Fowler & McVitie during the season handled 78 vessels in the domestic, 96 in the foreign and 14 in the Cuban trade, a total of 188. The 96 vessels loaded for transatlantic ports had an aggregate tonnage of 191,411 tons.

Belgium Needs Coal.

United States Consular Agent Dodi at Verriers, Belgium, writes under date of May 14 as follows:

"There is inquiry for bituminous coal for boiler furnaces, and the present emergency offers a good opportunity to introduce American coals into Belgium. Since December, 1898, I have been writing to coal concerns in the United States, but without result. People here are anxious to import large quantities, and I would like to know prices of bituminous coal delivered in Antwerp."

Turbine Wheels in Germany.

United States Consul Hughes at Coburg, Germany, writes:

"In these times when coal is hard to obtain our American turbine-wheel houses ought to give special attention to supplying Southern Germany with improved machinery for utilizing the water-power which is now running to waste, especially in Thuringia. They should send salesmen who can speak German and know how to operate the machines. The only water-wheel known here is the old-fashioned one."

To Import Fruit.

The Tropical Fruit & Steamship Co. has been organized at St. Louis, Mo.,

with \$500,000 capital. It proposes engaging in the importation of fruit from the West Indies and Central America, operating vessels out of New Orleans and Newport News. It is understood that special arrangements have been made with the railroad companies reaching these cities for fast train service to the Northern distributing points.

Completing Terminals.

The large grain elevator being constructed by the Chesapeake & Ohio Railroad Co. at Newport News is practically completed and is expected to be in operation by July 1. The coal piers are also nearly ready for service, while work is progressing rapidly upon the other terminals under construction.

Notes.

According to a dispatch from Norfolk, Va., the Norfolk & Western Railway Co. is considering the construction of another pier at Lambert's Point, to be used for coal exports entirely.

The steamship Lacroma has been chartered to load 1500 tons of coal at Baltimore for a port on the Adriatic sea. She will also carry a consignment of phosphate rock to the same port.

Southern Hardware Jobbers.

At the annual meeting last week of the Southern Hardware Jobbers' Association at Old Point Comfort, Va., the officers elected were: President, J. D. Moore of Birmingham, Ala.; vice-presidents, C. E. Speer of Fort Smith, Ark.; F. A. Heitmann of Houston, Texas; secretary and treasurer, C. B. Carter of Knoxville, Tenn.; executive committee, W. E. Gibson, Knoxville, Tenn.; G. W. Barrett, Montgomery, Ala.; O. B. Barker, Lynchburg, Va., and W. M. Crumby, Atlanta, Ga. Among the questions discussed were sales by the manufacturer, the jobber and retail merchant in the same territory, the importance of local associations, sales by manufacturers of standard brands of goods to catalogue houses and department stores, quantity discounts and sales to the retail trade in localities where the manufacturer is enabled to place his goods in the hands of a jobber, and effects of trusts and combinations on the jobbing business. Among those who participated in the discussions were Henry B. Lupton of New York; John Donnan of Richmond, Va.; W. A. Parker of Atlanta, Ga.; Thomas W. Fritts of Chattanooga, Tenn.; J. D. Moore of Birmingham, Ala., and James Moroney of Dallas, Texas.

Arkansas Hardware Dealers.

The retail hardware dealers of Arkansas have organized with E. W. Home of Forrest City, president; J. M. Pitman of Prescott and J. H. Morgan of Camden, vice-presidents; I. P. Rudolph of Arkadelphia, E. E. Mitchell of Morrilton, W. M. Harrell of Conway, F. C. Stearns of Hot Springs and J. A. Tappan of Helena, executive council. The association, which has already a membership of sixty, will endeavor to induce manufacturers and jobbers of hardware to confine their sale of wares to hardware dealers who carry on a full line of the same.

Purchase of a Resort.

A dispatch from Norfolk, Va., announces that a Philadelphia syndicate has purchased the hotel and other property connected with it at Virginia Beach, comprising in all 1300 acres of land, from the Norfolk, Virginia Beach & Southern Railway Co. The syndicate has formed a company with \$500,000 capital stock, of which James S. Groves is vice-president and general manager.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

The Kansas City, Mexico & Orient.

The New York Commercial reports that the Kansas City, Mexico & Orient Railroad, particulars of which were given in the last issue of the Manufacturers' Record, has made a 15-year traffic contract with the Chicago, Milwaukee & St. Paul Railroad, and that two other strong Western lines are now negotiating for some sort of an alliance with this new road. Referring to the importance of the contract made with the Chicago, Milwaukee & St. Paul, which will give that line a short route to the Pacific, and publishing the facts given in the last issue of the Manufacturers' Record, the Commercial says:

"These comparisons, taken in consideration with the shorter water route from Port Stilwell to the western coast of South America, the Sandwich Islands, the Philippines, Hong Kong and Australia, lead to the belief that this port is destined to become one of the greatest harbors on the Pacific coast. The road runs through Kansas, Oklahoma and part of Texas, and strikes the foot of the Sierra Nevada mountains. It reaches a rich mining region, and beyond the mountain range a virgin forest of pine and redwood. In Kansas, Oklahoma and Texas 200 miles of the road have been graded, and a number of miles of rails have been laid. About fifty or sixty miles east of Chihuahua the road enters 600,000 acres of semi-anthracite coal."

The announcement in the Manufacturers' Record last week covering this great undertaking has attracted wide attention, and the later statements made public in New York, showing the closing of the important contract with the St. Paul road, give evidence of the great energy with which this enterprise is being pushed. Mr. A. E. Stilwell, president, and Mr. W. Sylvester, the vice-president, recently spent a couple of months in Mexico arranging for the building of the road and making contracts with the Mexican government for State aid and for the control of mineral and timber lands which will be tributary to this line. The work which they have accomplished in Mexico and what they have done since returning indicates that the entire construction work will be pushed with remarkable activity. The building of this line, crossing Oklahoma and the State of Texas and connecting the South by a shorter line than any now in existence with the Pacific coast and the Orient, will probably mean more for this section than any other road ever constructed which was not exclusively on Southern territory.

Railroad Building in Mississippi.

According to the last report of the Mississippi railroad commission, nearly 400 miles of line were completed or under construction in that State in 1899. The new mileage included the Mobile, Jackson & Kansas City, twenty-five miles; the Gulf & Ship Island, which has nearly completed a 90-mile extension between Hattiesburg and Jackson, and branches of the Illinois Central in the Yazoo valley which aggregate nearly 100 miles more.

As an indication of how railroad building has appreciated the value of property in the State it is said that prior to the construction of the Gulf & Ship Island much of the land in its vicinity sold at a very low price. Now it cannot be bought for less than \$10 per acre, and holders are not anxious to sell at that. This land is finely timbered with yellow pine. Already

five large saw and planing mills have either been built or are in course of construction in Jackson, and others are to follow. Along the line many enterprises, such as saw-mills, turpentine distilleries, cottonseed-oil mills, banks, newspapers, etc., have been established, and where six months ago existed one little country store and postoffice are today to be found thriving towns and villages of from 200 to 1000 inhabitants.

From the line of the Illinois Central, which penetrates four or five counties on the western border of the pine region, scores of saw-mills have been the cause for constructing standard-gauge roads from three to ten miles in length, and these, too, will after a while be extended in the direction of the Mississippi river on the one side and the Gulf & Ship Island on the east, opening up to settlement and civilization millions of acres of timber and farming land. Gulfport is the terminal of the Gulf & Ship Island. Five or six years ago it was an unpretentious little village of 100 souls; it is now a town of 2000 inhabitants, and growing rapidly on the strength of the volume of business done there and more that is to come with the completion of the road to Jackson. Wharves have been constructed, and every facility for loading foreign vessels has been provided. The government has appropriated \$200,000 for deepening and improving the harbor.

Most of the other railroad building has been done in the great Yazoo-Mississippi valley, and is mostly in the shape of extensions and loops by the Illinois Central Company to its Yazoo & Mississippi Valley line. The "Leland Branch" connects Leland with Bogue Phalia, which are seventeen miles apart. The "Sunflower Branch," thirty-seven miles long, connects Tutwiler with Belzonia. The Yazoo Delta line, another connecting link, is twenty miles long. A branch from Grenada to Parsons, sixteen miles, is now being built. Another link from Dockery to Rosedale, twenty-three miles long, has been completed.

An Important Extension.

The question of extending the Choctaw, Oklahoma & Gulf Railroad from Weatherford, Okla., its present terminus, to Amarillo, Texas, is receiving serious consideration by the company, judging from the statement of Mr. J. F. Holden, traffic manager. In a recent interview Mr. Holden is quoted as saying:

"This extension means the addition of 200 miles of track to the system, and it has been projected through a country wonderfully rich in resources of a character that create good traffic revenue. It is estimated that the extension will cost something like \$3,000,000, and naturally time is required to financier such an enterprise. Arrangements for the money have not been made, but I incline to the belief that the directors have about settled in their minds in a general way the plans to be pursued, provided they determine to proceed with construction work at anything like an early date.

"For 100 miles west from Weatherford the country is highly productive from an agricultural point of view, and the remainder is one of the finest cattle-producing sections in all the Southwest; in fact, for at least 150 miles of the 200 cattle-raising is the all-important industry. There is no reason why Memphis should not be a much more important live-stock center than she is, and if enterprising men would take hold of the matter it seems to me this should also become a great packing-house point."

As already noted in the Manufacturers' Record, this extension would complete another link in a new transcontinental sys-

tem which would be by far the shortest route from the Mississippi river to the Pacific coast. In addition, it is reported that the company has decided to have surveys made of a further extension to Albuquerque, N. M., from Amarillo, where a connection would be made with the Santa Fe system and a route to the Pacific coast completed.

Important Decision.

A decision has been rendered by Justice Little of the Supreme Court of Georgia relative to the time limit of railroad tickets which is of much importance to transportation companies and the traveling public. The decision was given in the case of the Southern Railway Co. versus Watson. The court rules as follows:

"A carrier of passengers, however, has the legal right to make reasonable rules and regulations for the conduct of its business in the transportation of passengers. When a regulation is made fixing a limit to the time in which a ticket shall be good and the time of the limit affords to the passenger ample opportunity to make his journey with safety and convenience to himself, such a regulation, if otherwise reasonable, becomes a part of the contract of carriage, and if, after the expiration of the limit of time specified on his ticket, the passenger tenders the same for his transportation, and for refusing to pay fare is ejected from the car in a decorous and proper manner by the conductor, such ejection affords no cause of action against the carrier."

The plaintiff Watson offered a limited ticket on which the time had expired to the conductor of a Southern Railway train. It was refused, and Watson declined to pay his fare. He was put off the train and brought the suit which finally resulted in the above decision.

Vegetables by the Carload.

Mr. T. L. Peeler, industrial agent of the Missouri, Kansas & Texas Railway Co. in Texas, has recently made a trip through that portion of the State reached by his line, and in a recent interview is quoted as saying:

"Unless one goes over the country he can form no idea of the improved conditions brought about by diversification of crops in Texas. It was a hard matter to induce many farmers who raised nothing but cotton to plant anything else, but as newcomers settled up a community and demonstrated the practicability and profit in early vegetables and fruits the old one-crop cotton raiser soon got to diversifying his fields, until now we ship all kinds of vegetables by carloads, and those who raise and ship them make money. Every year you will see the crops develop earlier, because seed will be planted earlier in hotbeds and will be ready for replanting after the danger of cold weather has passed."

"In a few more years where carloads are now being shipped out of Texas there will be trainloads. The railroad companies will furnish the best equipment built especially for handling these products. Horticulturists and truck-growers are moving from other States to Texas, as they have found that they can beat other States on early truck, and the products they raise are of the best quality and grow prolifically."

Extension to Paris.

The question of extending the Little Rock & Hot Springs Western Railroad into Texas is being agitated by business men along the proposed route. As already noted, this line has been completed between Little Rock and Hot Springs, Ark., by a company of which S. W. Fordyce is president. It is proposed to build from Hot Springs to Paris, Texas, by way

of Mena, Ark., a distance of 150 miles. At Paris it will connect with a number of important systems, including the Gulf, Colorado & Santa Fe, the St. Louis & San Francisco and the Texas Midland. The extension will be of much value in developing Southern and Western Arkansas. The commercial organizations of Hot Springs, Mena, Paris and Little Rock have recently held a meeting and appointed a committee to promote the enterprise. It includes Messrs. W. W. Dickinson and James A. Fones of Little Rock and S. W. Williams of Paris.

Kansas City Southern Improvements.

The plans for improving the Kansas City Southern Railway now being carried out are quite extensive. A number of wooden trestles have been replaced by stone arches and steel girders, while a large amount of grading has been done, as well as the filling of cuts with earthwork. About ten miles of additional switches have been added to its present mileage, seventy section-houses built and equipment to the amount of \$75,000 placed in the shops of the line at Pittsburg, Kans., and Shreveport, La.

It is understood to be the intention of the present owners to lay all of the track with 75-pound rail, with the view of using engines and cars of the largest size for hauling business between Kansas City and Port Arthur. The ship channel extending to Port Arthur has been deepened to twenty-five feet.

Terminals at Galveston.

A dispatch from Galveston, Texas, states that work has begun upon the extension of the Galveston, Houston & Northern Railroad, now a portion of the Southern Pacific system, to the terminals being built on Galveston harbor in the interest of the Southern Pacific Company. The extension will be about three miles long and connect with the wharves and the yards on tidewater. Work is rapidly progressing upon the latter, and it is understood that the yards will be large enough to accommodate 2000 cars. Altogether the Southern Pacific Company, through President Huntington, has purchased nearly \$500,000 worth of real estate in and near Galveston for various purposes.

Another Contract Let.

In addition to the contracts recently noted in the Manufacturers' Record as let by the Southern Railway Co. in South Carolina, it has been decided to build what is known as the Ensley Southern Railroad immediately. Messrs. W. J. Oliver & Co. of Langley, S. C., have secured one contract for twenty miles of the Ensley Southern, on which work is to begin immediately. This contract is to be completed within the next ten months. The Ensley Southern is to extend between Ensley and Parrish, Ala., a distance of about thirty-five miles, penetrating the extensive coal deposits of Jefferson and Walker counties.

An Artistic Production.

The Railway and Engineering Review of Chicago has issued a souvenir edition in connection with the meeting of the Master Car Builders' and American Railway Master Mechanics' Associations at Saratoga which contains the portraits of the majority of the members of these associations. When it is stated that no less than 400 members are represented and that the portrait supplement contains twelve pages an idea can be gained of the magnitude of the work. The reproductions are of very artistic character and reflect much credit upon the publication in question.

Chesapeake & Western.

According to a dispatch from Harrisonburg, Va., the Chesapeake & Western Railroad, now in operation between Elkton and Bridgewater, Va., a distance of twenty-seven miles, has passed into the control of a syndicate which includes DeWitt Smith of New York, who was prominently identified with the construction of the Richmond, Petersburg & Carolina Railroad. It is reported in connection with the transfer that arrangements are being made to complete the road as originally intended into West Virginia to reach the coal fields in that State.

Fattening Cattle at Memphis.

The question of fattening live-stock in the vicinity of Memphis, Tenn., is being considered by transportation officials at that point. It is stated that enough cottonseed-oil products are manufactured in Memphis annually to fatten about 30,000 head of cattle, and that it would be one of the most convenient points in the South for the purpose intimated. It is understood that those interested in the matter will endeavor to secure special rates from the lines leading to the Southwest with the view of shipping cattle in large quantities to Memphis.

Jellico to Burgin.

The Commercial Club of Louisville, Ky., has taken a deep interest in the proposed railroad from Burgin, Ky., to Jellico, Tenn., by way of Lancaster, Ky. The club is considering the question of issuing \$50,000 to secure the necessary right of way. This line if built will be completed in the interest of the Southern Railway Co. and will be 85 miles long.

Order for Pullman Cars.

The Chicago, Rock Island & Pacific Railway Co. has given an order for a number of Pullman sleeping cars, which will be among the finest in this country. Each car will contain sixteen sections, furnished and decorated in the most modern and artistic manner. The order represents an outlay of over \$300,000.

Railroad Notes.

Mr. H. E. Huntington has been elected first vice-president of the Southern Pacific Railway Co.

The Train Dispatchers' Association at its recent meeting at Atlanta, Ga., elected J. R. Lusk as president; J. P. Mann, vice-president, and J. F. Mackie, secretary and treasurer.

At a recent meeting of the Washington Traction & Electric Co. F. C. Stevens was elected president; George H. Harries, vice-president; H. D. Mirick, treasurer, and James B. Lackey, secretary.

At the annual meeting of the Weatherford, Mineral Wells & Northwestern Railroad Co. L. M. Fouts was elected president; P. M. Bock, vice-president, and J. W. Boat, secretary and treasurer.

Mr. A. J. Davidson has been appointed general superintendent of the St. Louis & San Francisco Railroad Co. He has been acting as superintendent of transportation for the same corporation.

Mr. A. M. Quarrier, second vice-president of the Louisville & Nashville Railroad Co., who recently died in New York, had been connected with the company for forty-two years, beginning his career as clerk in the secretary's office.

The Louisville, Evansville & St. Louis Railway will be sold by order of the court on August 15. It is understood that it will be purchased by parties in the interest of the Southern Railway Co., which has decided to utilize it for an entrance into St. Louis.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

To Buy Round-Bale Cotton.

The Cotton Ginners' Journal in its last issue makes an announcement that is of great importance to the cotton trade of the world, as it indicates that a new factor has entered the cotton-baling contest in the decision of one of the largest square-bale houses of Memphis to become an active buyer of "Roundlap" bales. This means that other square-bale people will be compelled to follow. Thus the Roundlap bale is rapidly, by virtue of its merits, forcing itself to the front. The Cotton Ginners' Journal says:

"A correspondent in Memphis writes the Journal that it is an open secret in cotton circles in that city that Messrs. C. F. Farnsworth & Co. will, during the coming season, buy and handle the cylindrical bales of the American Cotton Co. produced at the plants in the Memphis territory. If this be true, and our information is regarded as trustworthy, the matter has more than passing significance."

"Messrs. Farnsworth & Co. are well known as buyers in the Memphis territory, for they rank there about as McFadden or Inman & Reed do in Texas—enjoying established reputation, most extensive connections in this country and Europe, and having adequate capital for operation on a large scale. Our correspondent says that up to this year the firm of Farnsworth & Co. have not bought any round-bale cotton. They were regarded as rather hostile to the round-bale system, or at least skeptical as to its merits. It is said that during the past season, however, impressed by the progress of the system, they instituted an exhaustive investigation on their own account, and reached basic conclusions as follows: 1. That the Roundlap bale is a practical, superior package; 2, that it offers marked advantages to growers, ginners and the local community; 3, that as a result of the savings assured by the system, buyers are equally assured of an attractive margin of profit; 4, that spinners in this country and Europe want the Roundlap bale."

"Convinced, by investigation, on these points, the firm decided to go into the field next season as buyers and handlers of the Roundlap bale, and it may be added that the Memphis territory, with its many Roundlap-bale plants, furnishes an attractive and extensive field."

"The action of this firm will undoubtedly have wide influence, but it was what might have been expected. The buyers of this country have been as urgent and earnest as anybody in appeals for improvement of the American bale for a better package. They have, as a rule, joined heartily in the movement for what is called the standard (24x54) square bale, and have done good work for that package. It was rather paradoxical, then, when a package as neat and generally commendable as the Roundlap bale came to the front, that the buyers—who of all men should know best what the spinners wanted—should exhibit distrust or hostility to the cylindrical bale. In truth, there was never any hostility, per se, to the package, for every buyer conceded its physical excellence. But the methods of

handling the round bale was the cause of buyers holding aloof. No doubt the buyer argued that those methods were of a nature to diminish profit in handling that form of bale, and as a rule buyers in the South have been disposed to let it severely alone. It was quite natural, this sentiment.

"It needed somebody like this Memphis buying firm to 'take the bull by the horns,' so to speak, and go right into the merits of the matter—see what there is in the Roundlap bale for the buyer. It would seem that this firm has realized that the distrust and apprehension were not warranted; that the bale offers opportunities to buyers just as much as the square bale does—and as sensible and alert business men they are going to handle it. It is safe to predict that other buyers will speedily follow the example set by Farnsworth & Co., and this season we shall see the Roundlap bale sought by buyers in open market as square bales are sought.

"We know nothing of the attitude of the American Cotton Co. in this matter, but fancy they will view with satisfaction the disposition of buyers to take the output of the round-bale presses. It should be more satisfactory than to maintain a cotton-buying department, as the company has done. It has been condemned unmeasuredly for this feature, but every man in the South who knows anything about the cotton business knows full well that the American Cotton Co., in view of the hostility to its system, was literally compelled to buy the output of its presses to establish and maintain a market for the round bales. Otherwise there would have been no market, at least in a satisfactory sense. It is different now. The bale is established. The spinners want it and know they can get it. Hence buyers will go after it, as they do the square bale, and there will be an end of the complaint that the bale was not bought and sold as square bales are. That complaint lacked real justice, seeing that it was a condition forced on the American Cotton Co., a matter of self-defense, pure and simple, but it was made, and there were many who did not stop to analyze and see how much of justice there was in it."

African and Asian Cotton.

American cotton-growers doubtless will be interested in a speech made at a meeting of the French Agricultural Society regarding the possibilities of the French Soudan as a supplier of raw cotton for French manufacturers. The speech, made by M. Dybowski, who has been a great many years in Africa, has been translated by United States Consul John C. Covert at Lyons. The speaker said:

"We possess immense areas in Africa where the cotton plant grows as luxuriantly as wheat in the most favored plains of France. To emancipate ourselves from England, which holds, as it were, an exclusive control of this textile, it is only necessary for us to systematize this branch of agriculture in the Soudan, Kongo, Senegal and the Upper Oubangi. The climate is most favorable, thanks to the strongly marked alternations of dry and wet seasons.

"The cultivation should be modified, not by the introduction of American cotton, which thrives indifferently there, but by an improvement of existing local varieties. Our commercial interests know what African cotton is. Thirty tons of it have already arrived here from the Soudan. Fifty tons more are about to be shipped. It is coarse, but that is because it was gathered by the natives from plants over a year old. It should be planted yearly, which can be done by the system of rotation of crops, if deemed necessary. Cot-

ton is like tomatoes. These two plants may live several years, but the first year's products are the only really good ones."

Another speaker, referring to the prospects of the cotton trade in Russia, said that while he was in Moscow he saw many wagons loaded down with cotton from Turkestan; that he thought that in the near future the Russian empire could supply the full demand of the metropolis; that the Russians believe that within a few years they will begin exporting cotton goods, and that the raising of cotton has already created great activity in all the Trans-Caspian country.

Building a \$100,000 Cotton Factory.

The work of constructing the plant of the Limestone Manufacturing Co. at Gaffney, S. C., is progressing. Local contractors are manufacturing the brick and erecting the mill structures as fast as possible. The main building will be 100x311 feet, two stories high, with annexed boiler and engine-house 100x40 feet. A local machine shop is making the castings for the mill. The steam-power plant is expected on the ground by July 15, and the cotton machinery is to be in place and operating by October 1. There will be 10,000 spindles, 2500 twistors, 300 looms, etc. (as previously announced), in the mill, all to be supplied by Northern shops; contracts already made. Sixty operatives' cottages are being erected. An investment of about \$200,000 will be represented in this mill. J. A. Carroll is president.

Another \$100,000 Cotton Mill.

North Carolina will gain still another cotton factory, to be added to the many already within her borders. This latest announced mill will be erected by A. M. Price of Lincolnton, N. C., a textile manufacturer of many years' experience now connected with several mills. The new plant is to have 5000 spindles, and will thus represent an investment of about \$100,000. It will be erected in the near future, but just when has not been stated yet. Mr. Price is now prepared to build a 200-horse-power steam plant, and asks estimates on complete equipment for it.

\$100,000 Mill at Humboldt, Tenn.

The Humboldt Cotton Mills, reported last week as incorporated at Humboldt, Tenn., will organize shortly. Messrs. J. R. Jarrell and C. H. Ferrell are the prime movers in the enterprise, and are now prepared to negotiate regarding equipment of machinery and for other necessary equipment. The intention is to build a plant of 3500 spindles and 100 looms for the production of cloth, investing about \$100,000.

Textile Notes.

Messrs. D. A. P. Jordan, T. E. Moore and C. C. Twitty are projecting a 10,000-spindle cotton factory for erection at Hartsville, S. C.

A semi-annual dividend of 4 per cent. on both common and preferred stock was declared last week by the Lynchburg (Va.) Cotton Mill Co.

Messrs. Row & Hopple of Senoia, Ga., contemplate establishing a cotton-batting factory, and are asking manufacturers of the required machinery to send estimates and full information.

A. M. Price of Lincolnton, N. C., contemplates forming company to build a large cotton factory. Mr. Price has been identified with Southern cotton manufacturing for many years.

William Gray of Dadeville, Ala., and others contemplate erecting a knitting mill. Manufacturers of knitting machinery are invited to send estimates and full

particulars regarding the knitting industry.

The Carolina Mills of Greenville, S. C., will install 5000 spindles at the start, instead of 3100, as was first announced several weeks ago. This decision will make this a \$100,000 plant. All the machinery has been ordered. P. C. Poag is treasurer.

Messrs. L. I. Moore, E. A. Moye, D. E. House, R. J. House and W. S. Atkins of Greenville, N. C., have incorporated the Greenville Knitting Mills, with capital stock of \$10,000, to manufacture knit goods.

The proposed Unity Cotton Mills of La Grange, Ga., lately reported, has organized with C. V. Truitt, president; Joseph E. Dunson, vice-president, and Fuller E. Calloway, secretary-treasurer. The capital stock of \$100,000 has been oversubscribed, and it is now intended to make it \$200,000 if possible. No other particulars are available yet.

The citizens of Drew county, Arkansas, are endeavoring to secure the erection of a cotton factory at Monticello. Local investors will subscribe from \$50,000 to \$75,000, provided an experienced textile manufacturer will furnish the residue of the capital or a part of it. Interested parties may obtain information by addressing W. A. Brown, president, Monticello Board of Trade.

A Canal Exposition.

About two weeks ago Mr. Sidney Story, editor of the Southern Trade Journal of New Orleans, made an address to the business men of the city pointing out the great advantages that would result from holding at New Orleans in the year in which the isthmian canal shall be opened to the world's commerce a great exposition in which the nations of the world may unite with the United States "in celebrating the greatest achievement of the century." As a result of the address a committee has been appointed to develop the idea. In a letter to the Manufacturers' Record Mr. Story says that the committee hopes to enlist in this work the support of the press of the entire country, and of the South especially. He adds: "The measure must commend itself to the warm support of all Latin-America, Asia, the Pacific islands and to the patriotism as well of the American people. Such an enterprise will result in great benefits to this country, and most especially to the South and West by bringing these two sections of our country in close touch with the limitless markets of Latin-America, China, Japan and the Pacific islands, where dwell millions demanding the products of American soil and factory."

The firm of McIlhenny & Hilleary, real-estate agents of Staunton, Va., has issued a neat catalogue giving a list of the properties in its charge at or near Staunton, in other portions of Virginia, in Maryland and elsewhere. The catalogue is handsomely illustrated with half-tone engravings, and contains well-selected matter showing the advantages of Virginia as a country for homes, for farming and for industry.

Mr. C. W. Petty of the Piedmont Iron Works of Greensboro, N. C., writes to the Manufacturers' Record that his concern has bought the plant of the Eagle Foundry Co. and is making a specialty of structural iron and steel of every description.

The Georgia Bankers' Association has elected F. T. Hardwick of Dalton, president; W. S. Witham of Atlanta, vice-president; G. H. Plant of Macon, treasurer, and N. P. Hillyer of Macon, secretary.

COTTONSEED OIL.

This department is open to the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

FINANCING OIL MILLS.

A Paper Before the Interstate Cottonseed Crushers' Association.

At the annual meeting of the Interstate Cottonseed Crushers' Association at Old Point Comfort, Va., last week Mr. G. N. Henson of Chattanooga, Tenn., read an interesting paper on the financial end of the oil-milling business. He divided his subject into three heads, the proper financing of the cotton-oil mill, the ultimate financial outcome of oil milling and the position of the bank man in relation to the business. He insisted that the use of a liberal supply of cash and confidence was needed for running an oil mill successfully, and he said:

"People with very small means and very little credit sometimes through blind perseverance accomplish wonders. I have known of railroads being constructed apparently without any original capital, and the same thing has no doubt happened in the case of oil mills, but when you trace it back to its source you may find a blind and misplaced confidence somewhere, and later on you may find a broken railroad or a broken mill.

"It is unquestionably true that many oil mills have in the past been built and successfully operated on a very small invested capital, but this outcome has generally been due to extremely favorable surroundings and conditions that rendered success possible with almost any kind of management. Those conditions are rapidly passing away, and the experiment of building oil mills without money is, it seems to me, becoming a dangerous experiment both to the projector and mill furnisher, as well as to the local banker. Of course as long as confidence can be commanded it will be possible to project and build enterprises involving the expenditure of large sums of money, but the day of settlement of accounts has got to come. If that day comes in depressed times or after a year of unfavorable results then a crash is inevitable.

"This necessary confidence to which I have referred may be had in the way of 'autographs' on the back of 'bills receivable' or in some instances through a reputation gained by a term of years of successful business record coupled with true and tried business integrity which begets confidence equal to or stronger than signatures.

"This brings me to the second division of the subject, the ultimate financial end of oil milling. The most that can be said on this is mere speculation. As to the final financial end of each mill, that, perhaps, will be largely a question of business management. The business is going to go on. It has become a great staple and has come to stay. Within the next few years it is likely to show a large increase, since new uses are all the while being found for the products. But this is not the serious part of the business. What we are all interested in is, Whither are we tending? What is going to be the final end of the rush of new mills in every section of the South? That the business is about to be largely overdone there can be no question. Already there are in some, probably in many localities, more mills erected and in course of erection than there is raw material to operate them successfully. I am personally convinced as I ever was of anything that breakers are ahead, but when and where we will strike them I am unable to

prophecy. Somebody has got to shut up shop sooner or later. Somebody's mill has got to close its doors before many seasons roll around. The question is, whose mill? I am not an alarmist or a pessimist, but on the contrary am accredited with being an expansionist, yet, with all that, it seems to me the storm is gathering slowly, and when it does break forth there will be wrecks and wreckage along the beach. You say, What is the solution of the situation? There are only two or three solutions. One is the voluntary stepping of construction of new mills. This solution is not at all probable. Secondly, the formation of a few large companies to take over the business, and lastly, a fight to the finish and a final gathering together into one or two big combines of the wreckage. One of the latter two courses will in all probability be the ultimate outcome of the cotton-oil industry in the South. I am sure it is veering around gradually, if not rapidly, to the survival of the fittest.

"This brings me to the third and last paragraph of my subject, the financial end as viewed by the bank man and his position and relation to the business.

"Unless you are provided with a larger working capital than the majority of oil mills, according to my general understanding, then the bank man is a factor in the business and is entitled to be considered. His position is a comparatively simple one, yet it has often in the past been a difficult one. As to the future, his relations to the business will no doubt continue as in the past. In the event of failures he will, as in the past, continue to show up as the largest creditor, and will no doubt continue from time to time to administer on the assets of the poorly-located, planned and managed mills. In the past it has been the practice in many small towns for a few men to get together, project and undertake to build oil mills with 50 per cent. or less of the amount required to erect the plant subscribed by solvent parties, depending on the local bank to furnish in the shape of loans the residue. These projectors generally start in with a mistaken idea or erroneous estimate of the cost of a good plant, and I regret to say that I believe in some cases the machinery people are not entirely free from blame for these mistakes or underestimates. The projectors are in some way led to believe they can build for a figure approximating their subscribed capital, but when they discover their mistake they are in so far that they cannot turn back, and then appeal to their local bank for help. A late start and a year of poor management is frequently sufficient to put the plant in possession of the banker, and he immediately bestirs himself to find somebody to 'help him let go.'

"The province of the banker in oil mills is not to furnish original capital to erect oil mills. Indeed, it should be enough for him to furnish only a part of the necessary capital to carry the stocks of seed, oil, meal, etc., and only then when he knows the capacity of his clients. The banker to a large extent is the second of the twin brothers referred to in the first part of this article.

"All credit is based on confidence. When the careful, cautious, yet confiding business or professional man passes his all through the teller's window and takes for receipt a few simple figures in a pass-book as a legal receipt his action is based wholly on his confidence in the ability and integrity of the men behind the counter.

"The all-absorbing questions, however, to an oil-mill man is how to secure the confidence of a local banker, whom he stands so much in need of in his business. While it is simple, it is not always an

easy thing to do. In extending credit bank people usually look to one or all of four things:

"1. The financial ability measured in unencumbered real or personal property of the borrower.

"2. The particular purpose for which the money is wanted.

"3. The probable outcome of the business in which the money is to be used.

"4. The past record and general reputation for integrity of the borrower, coupled with his business ability.

"The first and last considerations generally outweigh all others. My experience leads me to believe that larger and more extended credits are built up and sustained on the last consideration or basis than all the others. A man who has lived a life of business integrity, inscribed these words on his every business transaction with bank people and has gained for himself through years of struggle the reputation of a successful man, is entitled to the highest consideration at the hands of his banker, who has been watching him all these years. The biggest words in Webster's and all other dictionaries, if we could but realize and see them, are 'commercial honor.' They are the forerunner and flag-bearer of the twin words 'cash and confidence.' Some have learned the value of them and their tremendous force, but there are thousands in all lines to whom they seem to have but a vague meaning. 'Commercial honor' involves integrity and all the other elements that distinguish a whole man from a piece of a man. It involves truthfulness, promptness and open frankness, not only with the banker, but all other trades people with whom we come in contact.

"There should be no secrets in the business, as between yourself and your banker every transaction should be characterized with frankness, openness and confidence. Your banker, whoever he may be, should be made your confidante and adviser in all things in which he is to be financially interested. He should be made to feel that you, your property and your name for integrity, success or failure is standing in the breach.

"A few years ago I was standing in the courtroom of a Southern town while circuit court was in session. I noticed that at intervals, while the trial of cases were pending, different attorneys would work their way around to the judge's stand and insist on whispering something in his ear. After awhile his keen sense of justice, right and propriety rebelled, and he stopped the proceedings long enough to say, 'If anyone has anything to say about this lawsuit let him speak out where he is so all can hear. Stand up and practice law.' I was much impressed with the good, sound horse sense, and the words, 'Stand up and practice law' frequently revert to my mind. Stand up and run your oil mill; stand up and fulfill your contracts. I believe in standing up to your banker and to your contract if it takes your shirt to do it. A man who dodges, squirms and tries to evade the results of his undertaking is not deserving of credit, and sooner or later gets what he deserves. Some men gradually go down and drop out of the race for success and supremacy and never know the reason why. In many cases the true reason may be traced to a lack of commercial honor, which gradually makes its way to the surface and results in distrust and loss of confidence on the part of the business world. This reputation once acquired 'sticketh closer than a brother.'

"Most mill companies are corporations. No new untried corporation has a right to ask a bank man to extend it even a fair line of credit without the endorsement of its officers or directors. I have seen this

endorsement refused, given under protest or with bad grace. The position of the bank man is about this:

"You know the whole story and inside of your corporation. You have all the advantage of me. You know whether it is safe and solvent or not. If it is safe you run no risk in endorsing its paper. If it is unsafe then you have no right to ask me to assume a risk that you are unwilling to assume."

"In the case of an old corporation with established capital and credit or in the case of new corporations of ample and known capital and in the hands of men of known business ability and integrity the case is different. The whole fabric of credit is based on confidence. Confidence is of slow growth. Well matured it is more than capital in your hands. A misstatement, a dodge or false step may shatter in a moment what it has taken years to build up. True, commercial honor demands that every man stay by his gun and, if need be, go down with his ship to death."

Among the other papers read were "Crude Oil from the Mills to the Refiners," by A. H. D. Perkins, Memphis, Tenn.; "Legislation Against Oleomargarine," by Col. John F. Hobbs, New York; "Export Trade from New Orleans or Mississippi Valley," by H. L. Stoutz, New Orleans; "Freight Rates and Government Ownership of Railroads," by J. R. C. Boyer, Philadelphia; "Infancy of Oil Milling," by A. D. Miller, Little Rock, Ark.; "Refining," by Mr. Tille, Savannah; "A Trip Abroad," by E. J. O'Brien, Marianna, Ark.; "An Ounce of Prevention Is Better than a Pound of Cure," by F. W. Brode, Memphis, Tenn. Officers were elected as follows: President, Edward S. Ready of Helena, Ark.; vice-president, A. E. Thornton, Atlanta, Ga.; secretary-treasurer, Robert Gibson, Dallas, Texas. The convention met on the 16th inst., and after a short session adjourned to meet in New Orleans in next annual convention between May 10 to 15. The exact date will be decided upon by the executive committee.

Cottonseed-Oil Notes.

The North Carolina Cottonseed Oil Mills at Raleigh have given out the contract for a brick warehouse 150x60 feet to cost about \$6500.

The steamship Strathord of the Huds-peth Line, which sailed from Norfolk, Va., last week, took out among her cargo 1800 barrels of cottonseed oil for Hamburg.

The Burton Cotton Oil Co. of Burton, Washington county, Texas, has been chartered, with a capital stock of \$20,000. The incorporators are Wm. Bauer, Henry Fuchs, Thomas Watson, H. Knittell, Ed Swartz and C. W. Homeyer.

Mr. George T. Parkhouse, president of the Oil Mill Superintendents' Association of Texas, has issued a circular for an annual convention of cotton-oil-mill superintendents of the State to be held at San Antonio, Texas, June 27, 28 and 29, 1900.

The Wilmot Cotton Oil Mills of Little Rock, Ark., have been incorporated, with a capital of \$20,000, all subscribed. The officers of the company are J. B. Wooten, president; William Gaines, vice-president, and A. E. Jackson, secretary and treasurer.

The Laurel Oil & Fertilizer Co. of Laurel, Miss., has been organized with a capital stock of \$50,000. The executive committee, comprising Messrs. W. B. Rogers, C. E. Newcomer of Laurel and R. P. Clayton of Heidelberg, visited New Orleans last week to get plans and specifications and to let contracts for ma-

chinery for the plant, which will include a gin, an oil mill and a mixer. It is the intention of the company to get the plant ready by fall so as to handle the new crop.

At a meeting of the citizens of Ozark, Ala., last week the Ozark Cotton Oil Co. was organized, with a capital stock of \$30,000. Judge Carmichael was elected president; L. W. Kolk, secretary, and H. M. Sessions, treasurer. The matter of erecting the plant is under consideration, and work will begin at once, so that operations can be commenced at the opening of the next crushing season.

At Texas points cottonseed-oil mills are generally engaged in repairing and getting their plants in order for the next crushing season. The market for cottonseed products is generally quiet, and prices nominally steady. Prime crude oil, loose, is still quoted at 30 to 31 cents, and prime summer yellow at 33½ to 34 cents; linters, per pound, 4¼ to 5 cents, all f. o. b. mill at interior points, according to location; hulls, baled, are held at \$5 per ton, and cottonseed meal and cake \$22.50 to \$22.75 per ton delivered at Galveston.

The market for cottonseed oil at New Orleans has ruled rather quiet during the past week, with offerings moderate, and in some cases bids have been solicited for October and November new crop delivery. Values are nominally steady for old crop. Cottonseed meal and cake are steady. Shipments of oil to continental ports for the week ending the 14th inst. aggregated 215,260 gallons. Receivers' prices are as follows: Cottonseed, nominal per ton (2000 pounds) delivered here; cottonseed meal jobbing at depot, \$22 per short ton and \$23 to \$23.75 per long ton for export f. o. b.; cottonseed oil, 25 cents per gallon for crude loose f. o. b. in tanks here; in barrels, 28 cents, and 34½ to 35 cents for refined oil at wholesale and for shipment; oilcake, \$23 to \$23.75 per ton f. o. b.; linters—A, 4½ to 5 cents per pound; B, 4 to 4½ cents; C, nominal; hulls delivered at 20 cents per 100 pounds, according to the location of the mills.

The memorial of the Coosa River Improvement Convention, held at Gadsden, Ala., last September, has been published in attractive pamphlet form. It contains valuable statistics in arguments for an appropriation by Congress to remove obstructions from the Coosa river; portions of a paper by C. F. Flagler, United States army, on the same subject; a speech by Senator Morgan and reproductions of newspaper editorials bearing upon the question.

The State Bankers' Association of North Carolina, in session last week at Greensboro, elected J. P. Sawyer of Asheville, president; A. G. Brenzler of Charlotte, G. W. Montcastle of Lexington and L. H. Cutler of Newberne, vice-presidents; John M. Miller, Jr., of Charlotte, secretary and treasurer; C. N. Evans of Reidsville, H. L. Hunt of Wilmington, J. G. Brown of Raleigh and Lee H. Battle of Greensboro, executive committee.

The directors of the Commercial and Industrial League of Shreveport, La., recently organized, have elected L. C. Allen, president; J. B. Ardis and Dr. John P. Scott, vice-presidents; C. Scott DeLay, secretary, and W. J. Bayersdorffer, treasurer.

The Board of Trade of Birmingham, Ala., has elected John W. O'Neill, president; H. H. Sinnige, J. D. Collins, J. H. McCary, Joseph Loveman and D. J. Fox, vice-presidents; S. H. Barren, secretary, and Colman Blach, treasurer.

MECHANICAL.

Electricity for Flour Mills.

The Sperry Mills at Stockton, Cal., are installing a large electric motor, standing over eight feet in height, and the armature is six feet in diameter. The Westing-

house Electric & Manufacturing Co. especially built for the mill one of its type "C" induction motors, rated nominally at 400 horse-power, 2200 volts, but capable of carrying 500 horse-power. An illustration of this motor is presented. (See Fig. 1.) In the San Joaquin valley, California,

mining district hundreds of these motors are in use for driving mine hoists, pumps, concentrators and rock crushers. In the Eastern States there is no industry using power in which Westinghouse type "C" motors have not been introduced, the manufacturer states, with the greatest advantage. They are virtually auto-

windings of the primary are so arranged that when supplied with alternating currents differing in phase a rotary magnetic field is produced. This field acts upon the secondary winding and induces currents therein. Rotation is produced by the action between the secondary currents and the rotating field of the primary. From

fitted into corresponding slots in a hollow cylindrical shell of cast iron. This shell is held in the cast-iron frame of the motor. The conductors are machine-wound coils of wire, thoroughly insulated before being slipped into the slots of the primary iron core. A smaller-sized type "C" motor is also shown in Fig. 2.

The secondary of this machine is built up of laminated steel discs made of a high grade of metal, mounted upon an open spider, and carrying in slots around the periphery the rectangular copper bars of the winding. The whole secondary is extremely simple, rigid and durable. The conductors of the secondary are all purposely short-circuited, hence no accidental short circuit can occur to cause injury to the windings. The construction is practically indestructible from heating, raising of coils or mechanical injury in handling. The advantage of so simple and substantial a construction without moving contacts and switching device have led to a wide use of the motor.

There have recently been shipped to Paris two Westinghouse type "C" induction motors, each of 850 horse-power, which are the largest yet constructed. They will be put in service at the exposition for operating a movable platform about three miles in length.

Improved Oil-Mill Linter.

During recent years there have been introduced some of the most important improvements known to the mechanical world. Since the introduction of oil made from cottonseed this branch of manufactures has had its portion of improved machinery. The Brown Cotton Gin Co. of New London, Conn., has been a pioneer in this branch, and its linters for oil mills are well known throughout the section in which the industry thrives, as are also its cotton gins.

The company has made an improvement in the method of driving the float on its linters, and calls attention to it. The driving of the float on all linters so as to get the best results from the operation of the machine has always been a source of

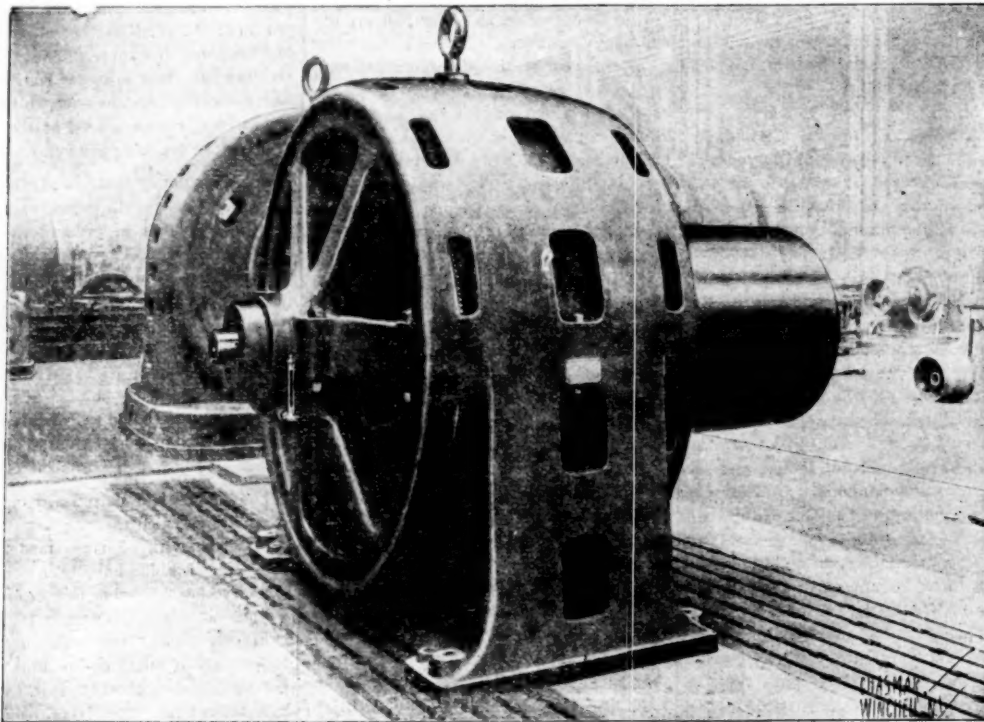


FIG. 1—WESTINGHOUSE TYPE "C" INDUCTION MOTOR, 400 H. P., 2200 VOLTS.

house Electric & Manufacturing Co. especially built for the mill one of its type "C" induction motors, rated nominally at 400 horse-power, 2200 volts, but capable of carrying 500 horse-power. An illustration of this motor is presented. (See Fig. 1.) In the San Joaquin valley, California,

matic, and can be run by an inexperienced workman without danger. They are sparkless, and in consequence the United States government adopted them for powder mills.

This type "C" induction motor gives universal satisfaction, and fully justifies

a mechanical standpoint this motor is reduced to the smallest possible elements—a stationary part permanently connected to the main circuits, and a rotating part having no electrical connection with any other. The wearing parts are the shaft and journal-boxes. This simplicity enables the motor to operate for long periods of time with a minimum of attention. The large motor supplied to the Sperry Mills has a hollow cylindrical frame of

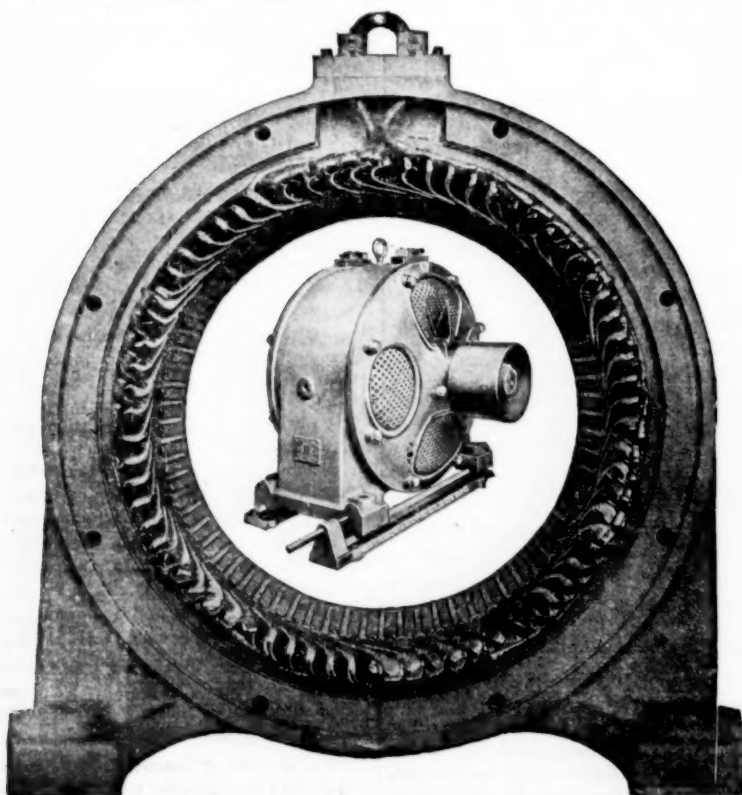


FIG. 2—STATIONARY PRIMARY OF WESTINGHOUSE TYPE "C" INDUCTION MOTOR, 400 H. P., WITH COMPLETED SMALLER MOTOR WITHIN.

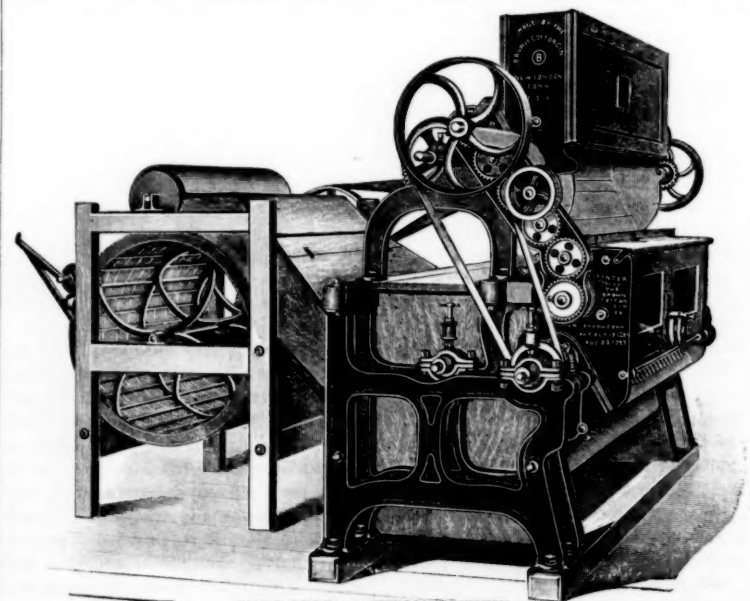
numbers of these motors, ranging from five to fifty horse-power, are employed for operating pumps. Gold-dredging companies on the Yuba river employ several motors for operating gold dredgers and mining apparatus. In the Cripple Creek gold-

its enviable reputation. The motor has two main elements—the primary, which is directly magnetized by the current supplied from the circuits, and the secondary, in which low potential currents are induced by the action of the primary. The

cast iron, in which the primary is mounted. This frame for holding the primary is of two parts, which are separated horizontally.

The primary element, also illustrated (see Fig. 2), consists of a hollow cylinder built up of laminated rings of sheet steel, mounted on the inside to receive the conductors. In motors of a large size, such as supplied to the Sperry Mills, the rings are not continuous, but are made up of segments which are dovetailed and are

more or less trouble and annoyance. The new method is claimed to overcome all former difficulties. It is accomplished by a train of cut gear, all enclosed in a casing. This gets rid of the annoyance caused by slipping of the float belt. The gears run noiselessly and increase the capacity of the machine. The feed is entirely automatic, as before, and the improvement accomplishes what has long been desired, that is, a strong, positive drive for the float.



IMPROVED COTTON LINTER.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., June 20.

While the future outlook of the local lumber market is regarded as promising by manufacturers and dealers, the tone of trade at the moment is quiet. Receipts of air-dried North Carolina pine have lately been quite heavy, the wharves and docks being piled up with an unusual quantity of lumber. The demand in all avenues of the local trade is, as usual at this period of the season, only moderate. Out-of-town buyers have been in the market for some good-sized lots of air-dried stuff, but with the exception of some sales of small lots to box factories and the takings by yardmen, the volume of business shows no improvement. In kiln-dried North Carolina pine lots from first hands have been exchanged more freely, and from Northern and Eastern sections the indications are that business will improve towards the fall months. The foreign demand for the better grades of North Carolina pine is fairly active, and promises to show up much better as the season progresses. As to prices, they are easier for air-dried lumber, but for most grades of kiln-dried yellow pine values are very steady, with holders not disposed to deviate from list figures. The inquiry for white pine is fair, with prices steady. Cypress is quiet and steady. There is a good demand for dry stocks of hardwoods, and in poplar prices continue to rule firm, with an active movement. There is a good inquiry for plain-sawn oak, but for quarter-sawn oak the demand is not pressing, while values for the latter are easy. There is a fair trade in hardwoods for the foreign export trade, and shippers report good clearances so far this month from this port and Norfolk.

Charleston.

[From our own Correspondent.]

Charleston, S. C., June 18.

A fairly active demand seems to be the rule in nearly every avenue of the lumber industry of this section. A number of inquiries are to hand from Northern and Eastern markets, and the outlook is good for more than an average volume of business during the summer season. At the various milling sections adjacent to this city the output of lumber shows no material increase, and stocks are about sufficient for the demand. Yellow pine and cypress lumber may be written steady as to values, and in the latter there is a scarcity of some grades, while values are unchanged. The cross-tie industry shows an increased volume of business, and shipments are likely to show a material increase during the balance of the year. In shingles shipments from Georgetown and other points are better, the demand showing up in better shape than usual, while prices are firm for desirable lots. The lumber trade of Georgetown continues active, and, as in all other lines at this port, trade is of a very encouraging character. This port has been making great strides during the year in all commercial and industrial avenues, and the record of the present year bids fair to show a remarkable increase in shipments of wood products and other commodities. During the past week Charleston's shipments of lumber were as follows: For New York barkentine E. S. Powell, 405,520 feet, schooner Charles C. Endicott 600,000 feet, bark Charles Loring 417,000 feet, schooner Nelson E. Newberry 540,

000 feet and steamship Iroquois 23,260 feet. The schooner Percy & Lillie cleared for New London with 336,000 feet of lumber. The total shipments of lumber from Charleston from September 1, 1899, to June 15, 1900, amounted to 45,694,302 feet, of which 43,624,302 feet were coastwise and 2,070,000 feet foreign. Freight on lumber and other wood products are steady as to rates, with a fair offering of handy-sized vessels. A very important meeting is that of the South Atlantic Lumber Association, which will be held here on the 20th inst. at the Hotel Calhoun. This meeting will be attended by the leading lumber merchants and manufacturers of the South, and will be one of considerable interest. Various matters relating to the lumber industry of the South will be discussed; reports from other sections will be submitted, with a general exchange of ideas, and such action taken as will redound to the best interests of the trade.

Mobile.

[From our own Correspondent.]

Mobile, Ala., June 18.

The week under review has developed an unusual movement in local lumber shipments, and the demand seems to show no indications of any marked decrease. During the week there has been great activity among the mills, both here and at adjacent points. The strike among mill hands at Moss Point and other milling sections has had the effect of curtailing the output. The Moss Point Lumber Co., which is an extensive milling concern, is now getting negro labor from this port and operates its mills regardless of the strike. Manufacturers in the Export Bureau of Information are satisfied with the outlook for trade, and many predict a very active demand during the summer. Shipments this week have been well distributed, and of the 4,343,132 feet of lumber leaving this port, over 1,000,000 feet went to New York city and the East. A large bark took out 780,527 feet of lumber to Port Natal, South Africa, and it is said that other orders from that section are expected. There is also considerable business with Central America, Mexico and Cuba, a falling off, however, being apparent in shipments to the latter country. The total shipments of lumber from this port for the season aggregate 125,152,885 feet. The steamer Lairesnes cleared for Geestemunde, Germany, with 1722 cubic feet of sawn timber and 1,380,758 superficial feet of lumber. The market for hewn and sawn timber is quiet, in sympathy with the tone of trade in the European market. Hewn timber is quoted at 15 to 16 cents per cubic foot, hewn oak 15 to 18 cents, and poplar 12 to 13 cents. Sawn timber is steady at 15½ cents per cubic foot, 40-foot basis. Cypress logs are quoted 6 to 11 cents per cubic foot, poplar \$8 per 1000 feet, oak \$8 to \$12 per 1000 feet, with a good demand for pine logs at \$5 to \$10 per 1000 feet. Freight continue to rule firm, with a moderate offering of vessels. Rates on lumber to the West Indies, \$8 to \$10; Mexico, \$9 to \$12; Rio Janeiro, \$14; River Platte, \$13 to \$14; coastwise, \$7 to \$8.50, and Cuba, \$8 to \$9.50. The following charters are reported: Norwegian bark Ellizer, 818 tons, from Mobile to Buenos Ayres with lumber at \$14; a British steamer, 2600 tons, from the Gulf to United Kingdom or Holland with timber at 130/, old form.

Savannah.

[From our own Correspondent.]

Savannah, Ga., June 18.

There is a most decided tone to business in nearly every department of the lumber trade in this section. Manufacturers seldom complain, and are generally looking forward to a good trade during the sum-

mer and autumn months. The demand is steady from all the usual sources, and both here and at nearby Georgia ports all the mills are running regularly on the basis assigned by the Georgia Saw-Mill Association. Prices continue to rule firm for desirable lumber, the market closing on Saturday at the following quotations f. o. b. vessel Savannah: Minimum yard sizes, \$13 to \$14; ear sills, \$14 to \$16; difficult sizes, \$16 to \$25; ship stock, \$25 to \$27.50; sawn ties, \$11 to \$11.50, and hewn ties 33 to 36 cents. Shipments for the past week have not been as large as usual, owing to the non-arrival of vessels, about 2,000,000 feet having left the port. There is a strong movement in cross-ties, for which there is a good demand from railroads. Reports from nearby ports are very encouraging, Brunswick especially showing remarkable activity in shipments. The following figures show the shipments from Brunswick in wood products for the year ending June 30, 1900, the estimate being based on the figures to date and last year's shipments: Exports of lumber, timber, cross-ties, laths and shingles from July 1, 1899, to June 30, 1900, is 295,593,000 superficial feet, or an average of 24,632,750 superficial feet per month. The port of Brunswick has been steadily increasing in the volume of business in lumber, timber, cross-ties, etc., and the outlook at present is regarded as very promising for future operations. Darien is also among the thrifty Georgia ports, and in its timber and lumber trade has developed much more than an average trade during the present year. The various charters, which are always an index to business, show that shipments of lumber during the next thirty days will be liberal. Those recorded last week are a schooner, Brunswick to Tenerife with lumber on private terms; schooner Chas. K. Schull, 827 tons, Brunswick to New York with ties at 14 cents; schooner Sadie C. Sumner, 587 tons, Savannah to New York with lumber at \$5.12½, 40,000 feet a day; brig Jennie Hulbert, 414 tons, Darien to New York with lumber at \$5.12½; schooner Gertrude L. Trundy, 402 tons, from Savannah to Bath, Me., with lumber at \$5.50; schooner Lucy A. Davis, 536 tons, Savannah to New York with lumber at \$5, and schooner Maud Dudley, 326 tons, Brunswick to New York with lumber at \$5.25.

St. Louis.

[From our own Correspondent.]

St. Louis, Mo., June 18.

There are few changes to be noted in the various departments of the local lumber trade during the past week, but with wholesale dealers a slight improvement is reported, while in other avenues the situation remains unchanged. Those engaged in the lumber trade take a more hopeful view of the situation, and while the volume of business is moderate, orders are being freely received. One of the factors which restricts operations is the existing difference between carpenters and contractors, which is still unsettled, and, of course, injures the demand for building material. These and other difficulties once adjusted would give a very active market, as an immense quantity of building is in suspense on this account. The out-of-town retail dealers are purchasing more liberally than for the last sixty days. Yellow pine is now in good condition; the output has been reduced, while heavy rains have retarded operations, and, with the exception of very large mills, none are running on full time. Prices continue to rule firm. Stocks are generally light, and with any urgent demand orders would be difficult to fill. In hardwoods there is a fair business being developed, and while no decided improvement is recorded, dealers consider the out-

look promising. Prices continue very steady, and collections are good. The demand for plain red oak is fair, and receipts on contract are liberal. Quartered red oak is in good demand, white oak, however, selling better. Dry stock of certain grades is scarce, while there is a heavy stock of green lumber going into pile in the local yards. Stocks of poplar are better, local dealers having been in the market recently and purchased freely. Squares are in good demand, and almost all grades are ready sale. Cottonwood has undergone no material change during the past week, and it is likely during the summer months that it will remain without new features. There is no surplus stock at mills, and manufacturers are generally engaged filling old contracts at high figures.

Lumber Notes.

The Standard Furniture Co. of St. Mathews, S. C., has been chartered, with capital stock of \$10,000. The incorporators are F. C. Cain, W. L. Cain and S. Pearistine.

The Leesburg Cooperage Co. of Leesburg, Fla., has purchased the barrel factory of Messrs. Nilson & Phillips and now owns and operates both of the Leesburg factories.

Receipts of lumber at the port of New Orleans for the week ending the 15th inst. amounted to 2,859,000 feet, and for the season 29,313,000 feet, against 25,278,000 feet last season.

The steamer Strathord of the Hudspeth Line, which sailed from Norfolk, Va., last week, carried among her cargo five carloads of cedar logs consigned to the Faber Pencil Co. at Hamburg.

The big sash, door and blind factory of F. C. Turner & Co. of Mobile, Ala., was totally destroyed by fire on the 14th inst. The loss on the sash factory is about \$35,000, with insurance \$17,000.

The strike situation at Moss Point, Miss., is unchanged, and no settlement in sight. Business with all the mills is restricted, and the Moss Point Lumber Co. is importing negroes from Mobile, Ala.

A woodworking factory is soon to be established at Dublin, Ga., to manufacture baseball bats, hoe, axe and broom handles. A company is to be chartered with a capital stock of \$5000 and privilege of increasing to \$50,000.

The Magnum Locust Pin Manufacturing Co. at Liberty, Tenn., has started its machinery and will manufacture insulator pins. P. J. Magnum of Liberty and W. P. Magnum of the Cumberland Telegraph & Telephone Co. are the proprietors.

The total shipments of lumber from the port of Mobile for the week ending the 15th inst. aggregated 4,343,132 superficial feet, of which over 1,000,000 feet were shipped to Northern ports. The total shipments of lumber for the season aggregated 125,152,885 superficial feet.

The schooner Charles C. Lister has been chartered by the Brown Company to carry six cargoes of cross-ties from Wilmington to New York. The vessel was loading lumber at Georgetown last week and will begin her contract as soon as she returns from her present engagement.

The exports of lumber, timber, cross-ties, laths and shingles from Brunswick, Ga., for the twelve months ending June 30, 1900, aggregates 295,593,000 superficial feet, or an average of 24,632,750 superficial feet per month. The above estimate is based on the figures to date and last year's shipments.

Reports from Johnson City, Tenn., are very encouraging in regard to the hardwood trade of that section. Large oper-

ators in poplar and other hardwoods in Unicoi and Sevier counties, Tennessee, and in Madison, Macon, Mitchell and Yancey counties report an active demand from the New England States.

The Childers Lumber Co. of Fort Meade, Fla., has added new and improved machinery to its saw-mill plant. The company is now actively engaged in getting out oak, cypress, gum and other hardwoods from the swamp on Peace creek. Mr. John F. Marsh, late of Alabama, is the general manager of the company.

It is stated that Alexander Gilmer of Orange, Texas, has disposed of a portion of his pellow-pine holdings in Louisiana to Bowman, Hicks & Co. of Kansas City, Mo. The transfer consists of 8000 acres on the Kansas City Southern near Many, and the consideration \$96,000. The purchasers will erect a big saw-mill on the property.

Mr. C. B. Laet, a prominent lumberman of Virginia, has completed negotiations for 200,000 acres of timber land in the extreme southern portion of the State and has just perfected the organization of a company to manufacture lumber on a large scale. The company will have a paid-up capital stock of between \$1,000,000 and \$2,000,000.

The Tampa Lumber Co. of Tampa, Fla., has been chartered, with a capital stock of \$50,000. The incorporators are Peter O'Knight, James T. Moffett, Emory C. Lasseter and Elijah Moffett. The company will manufacture all kinds of lumber, woods, sash, doors, blinds and building material. It will also build extensive saw-mill plants and operate tram railroads.

The Boston Lumber Co., Limited, of Selma, Louisiana, has just been organized, and will have its headquarters in Alexandria, La. The capital stock of the company is placed at \$40,000. The company will operate a saw-mill and conduct a general wholesale and retail lumber business at Selma, in Grant parish. The stockholders of the company are W. W. Sanders, George S. Lacey, W. D. Sanders, W. S. Lacey and J. H. Smeiser. Mr. W. W. Sanders is president of the company.

The committee appointed by the Memphis Lumbermen's Club to look into the matter of increasing barge and river unloading facilities for logs, lumber and stave timber met in Memphis last week. The plan on which the committee has been working contemplates the establishment of a derrick at the Kansas City, Fort Scott & Memphis incline and the increase of the present barge equipment in conjunction with the Memphis Barge & Towing Co., the lumbermen to put up the money with which to establish the derrick and fit it with machinery and the company to do the towing and unloading. It is estimated that the plant will cost about \$50,000.

Among the shipments of lumber from Jacksonville, Fla., last week were the following: Steamships Comanche, 250,000 feet of lumber and 5523 crossties, and Algonquin with 175,000 feet of lumber and 6000 bundles of shingles for New York, and George W. Clyde with 200,000 feet of lumber and 4000 crossties for Boston; schooner Thomas Winsmore for Philadelphia with 381,000 feet of lumber, and schooner Carrie Strong with 410,000 feet; schooner Isaac N. Kerlin for Washington, D. C., with 216,000 feet of lumber. Shipments of lumber to Hope Town, B. W. I., were 26,000 feet of lumber and 15,000 shingles, and to Kingston, Jamaica, 31,167 feet of lumber and 281,800 shingles.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., June 20.

There has been a moderate business in phosphate rock in the local market during the past week, but buyers are only purchasing in small lots for immediate wants. Both Tennessee and South Carolina rock have been selling at prices showing a steady tone. The charters reported during the week were as follows: British steamship Nymphaea, 1249 tons, from Fernandina to Dantzic with phosphate at 23/6, June-July; British steamship Sportsman, 1211 tons, from Savannah to Rotterdam with phosphate at 18/6, July-August, and British steamship Grangewood, 1631 tons, from Fernandina to Rotterdam or Dublin with phosphate at 18/6, August. The reports from points of production in South Carolina continue to show a fair development in the phosphate properties of that State. A moderate demand from domestic sources is reported, with a light foreign inquiry, while prices for the several grades of rock are very steady at unchanged rates. In Florida the movement of hard rock from the ports is fairly active, and in pebble phosphate there is considerable moving from Tampa and the Peace river district. There is a better foreign inquiry, and from domestic sources there is a good demand for pebble. Miners are generally busy and working their deposits with considerable enterprise. Reports from the Tennessee phosphate field show a quiet market, with a better foreign inquiry for Mt. Pleasant rock. Prices continue to rule about steady, and miners are not disposed to make concessions in order to effect sales.

Fertilizer Ingredients.

The market for ammoniates has ruled quiet, with a moderate inquiry, and prices about steady at recently reduced figures. Buyers are in the market for medium-sized lots, but are only purchasing when concessions are granted, so that actual transactions are limited. Nitrate of soda continues quiet and steady at previous week's list. Sulphate of ammonia is unchanged.

The following table represents the prices current at this date:

Sulphate of ammonia (gas).....	\$2 82 1/2	2 85
Nitrate of soda.....	1 80	1 85
Blood.....	2 00	2 05
Acotine (beef).....	2 20	2 25
Acotine (pork).....	2 20	2 25
Acotine (concentrated).....	1 55	1 50
Tankage (9 and 20).....	2 05 & 10c	2 10 & 10
Tankage (7 and 30).....	18 00	18 50
Fish (dry).....	24 00	25 00

Phosphate and Fertilizer Notes.

The schooner Emma C. Knowles cleared from Charleston, S. C., last week with 965 tons of phosphate rock for Elizabethport, N. J., and the steamship S. T. Morgan for Baltimore with 2000 tons.

The Palatka Kaelin Co. near Leesburg, Fla., has been at work for some time with a large force of men, and the outlook is that a great development in the kaolin business is pending which will make this section one of the greatest kaolin centers of the country.

It is stated that ex-Senator J. W. Hooker has just sold for himself and others 570 acres of fine phosphate lands in Polk county, Florida, to Boston parties. This tract of land has been pitted and sample rock from each pit analyzed, which shows an excellent grade and heavy deposit. A new phosphate plant will be erected on this property at an early date.

The whaleback steamer City of Everett arrived at Port Tampa, Fla., on the 13th inst. for a cargo of about 3500 tons of phosphate, and the Austrian steamer Lacroma cleared and sailed on the 12th inst. for Venice with a cargo of 2222 tons

of pebble phosphate from the Palmetto Phosphate Co. The British steamer Swanley and schooner James W. Fitch were loading phosphate cargoes at Port Tampa on the 14th inst. The Swanley sailed for Stettin on the 16th inst. with 3600 tons of rock from J. Buttgenbach & Co.

The Sample Lumber Co., operating extensive lumber mills at Hollins and Elbion, Ala., on the Central of Georgia Railroad, has awarded a contract to C. D. Smith & Co. of Birmingham for the construction of a railroad ten miles in length from Elbion through a rich timber region which it is the purpose of the company to develop. The contract calls for the expenditure of \$50,000.

It is stated that a number of saw-mills and stave and handle factories will be erected in Cumberland county, Tennessee, at an early date. Messrs. McElree & Jackson have erected two saw-mills at Mayland, in that county. Mr. W. W. Berry is commencing operations in the erection of a stave factory, and Mr. L. B. Pennock is about to erect a spoke and handle factory and saw-mill.

Large sales of timber lands have been made during the past thirty days by real-estate agents in Vicksburg, Miss., to Chicago capitalists. Among the recent purchasers are Messrs. Geo. T. Houston & Co., mill men of Chicago, who took 150,000 acres in Sharkey county, Mississippi, and Messrs. Lyon & Garey of Chicago, 50,000 acres in Issaquena county, which were sold at a good price. It is stated that Messrs. Houston & Co. will put in a large hardwood mill in Vicksburg in the very near future.

TRADE NOTES.

Granite Property.—Parties desiring to develop a supply of granite in the South on lease, or who wish to buy outright will find information of interest by addressing J. F. Harris of Henderson, N. C., P. O. Box 12.

Brick-Machinery Sale.—Brick manufacturers frequently want to buy second-hand machinery to replace worn equipment or increase capacity. C. Siedler of 156 Fifth avenue, New York, has some machines in this line which he offers at low figures, including a dry press brick machine, a dryer and a disintegrator.

Sale of Iron Bridge.—The iron work of a railroad bridge may be used for other purposes should circumstances close its usefulness in its first intended character. For instance, the iron work can be used for buildings, traveling cranes or other bridges. N. B. Doney of Elmira, N. Y., has such a bridge which he offers for sale.

Oil Filters for Cuba.—The American occupation of Cuba has revived industrial life there, and many new industries are being established. Among recent orders for American goods for these industries was mentioned "Cross Oil Filters" for a large electrical power-house in Havana. The Burt Manufacturing Co. of Akron, Ohio, manufactures the filters.

Busy Making Pumps.—The demand for pumps is constant and large at this time, and the manufacturers of highest standing in this class of product are busily engaged in filling orders. The John H. McGowan Co. of Cincinnati, Ohio, is one of the best-known makers in the pump line, and its plant is now operating on an extended list of booked orders. Orders on hand now would keep the works running more than two months. Much new machinery has been added to the McGowan works to facilitate operations.

Ice-Machinery Builders.—The Remington Ice Machine Co. of Wilmington, Del., reports a steady increase of orders during the past month; in fact, so many new orders have been received as to render it necessary to increase accommodations. Large additions have been made to both the factory and office buildings. The company's small machine department, which is its specialty, is well stocked with machines ready for immediate shipment. It is promptness of delivery that has assisted greatly in making

the Remington Company so deservedly popular with its patrons.

Electric Heaters.—Contract has been awarded for electric heaters to be used on the Boston elevated railways. This is one of the largest orders ever placed, and it includes contract for 150 sets of surface car heaters. The railway made extensive tests of electric heaters furnished by five companies before it signed contract, and the Gold Car Heating Co. of New York city received the award. Gold standard electric heaters will be fitted on the elevated cars, and improved Gold panel electric heaters on the surface cars.

Recent Ice-Machinery Sales.—The use of ice-making machinery continues to spread throughout the entire civilized world. American manufacturers of the first class are the builders of this machinery, among them being the Fred. W. Wolf Co. of Chicago. Recent sales by this company were made in Chicago, Richmond, Victoria, B. C.; Sioux Falls, Iowa; Manila, P. I.; Sydney, Aus., and Buenos Ayres. The orders included all kinds of ice machinery and supplies, such as 36-ton ammonia condenser, 50,000-gallon cooler, expansion piping, etc.

Decision on "Teaser" Patents.—The Bullock Electric Manufacturing Co. of Cincinnati, Ohio, has obtained a court decision sustaining the validity of its "Teaser" patents and ordering injunctions against certain users of it. The Bullock Company has the exclusive right to manufacture the "Teaser" patents, which cover a system for operating large newspaper presses and other machinery by electricity. The system is used in many newspaper offices throughout this country and England, and has proven to be successful and economical.

Electric Railway Contractors.—The new 20-mile line of the Erie (Pa.) Rapid Transit Street Railway Co. is being constructed by the well-known contractors, Messrs. Smet-hurst & Allen of Philadelphia, Pa. The firm has contract to construct and equip the entire system. Westinghouse motors and generators will be used; the E. Keeler Co. of Williamsport, Pa., will furnish the boiler plant, stock, etc.; Clark Bros. of Belmont, N. Y., furnish the engines, and the cars are being made by the St. Louis (Mo.) Car Co. The entire equipment will be of the latest designs approved by the best practice in electrical railway operation.

Elevating and Conveying.—Machinery for elevating and conveying is in a class that requires the highest art of the mechanic and manufacturer to make it the best possible equipment for its purpose. Activity in many machinery lines has not overlooked link-belt elevating and conveying machinery as made by the Link-Belt Engineering Co. of Nictown, Philadelphia, Pa. This company is handling an unusually large trade at present, and the demand has caused it to twice increase its capacity within the past three months. An addition is now being built to the woodrooms and the draughting department. Much new modern machinery has been installed, and additional workmen have been employed.

Immense Press and Die Works.—Users of presses and dies throughout the industrial world are well acquainted with the machinery of that class as manufactured by the E. W. Bliss Co. of Brooklyn, N. Y. This company has been producing its machinery in large quantities lately, and the demand has increased until it is found necessary to enlarge facilities. Accordingly, this has been undertaken, and work is now under way on a continuation of the present six-story building. The extension will give the works altogether 300,000 square feet of floor space, besides which there will be built a new foundry. This latter will increase the foundry capacity fourfold, while the general factory will be increased in capacity one-third.

Recommending a Boiler Compound.—The formation of scale and other foreign substances in boilers is the cause of much annoyance and expense to steam users. The use of compounds for dissolving such formations or for preventing them is now universal. A user of the International Boiler Compound Co.'s products writes: "Using your compound three years, can say without hesitation it has proved all your agent claims. It has removed old scale, and our boilers are in perfect order. We use it in manufacture of beer and in manufacture of ice where we use condensed steam, and find we can use it with safety. It is both economical and effective." The Tell City (Ind.) Brewing Co.'s brewmaster makes the statement. Write the International Company at 47 Market street, Chicago, for information of its compound.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Anniston—Carpet Mill.—The Anniston Carpet Mills has installed six new looms.

Anniston—Distillery.—Reid Bros. will build and operate a large distillery.

Birmingham—Coal Mines, etc.—The Warrior Coal & Coke Co., J. W. Sibley, treasurer, will open coal mines at proposed new town of Sibley, on Warrior river, with an output of 1000 tons per day, and build 200 coke ovens. It is also said that water-power will be used to generate electric-power for the operation of a cotton mill.

Coal City—Coal Mines and Coke Ovens.—The Coal City Coal & Coke Co. will open new coal mines and construct additional coke ovens. (A recent note under Cedartown, Ga., erroneously reported the title of company making this development.)

Dadeville—Knitting Mill.—The establishment of a knitting mill is contemplated. Address William Gray.*

Ensley—Mercantile.—Chartered: The Ensley Mercantile Co., with capital stock of \$10,000, by W. R. English and others.

Gadsden—Coal and Iron Lands.—The Coosa Valley Coal, Iron & Mining Co. has been incorporated, with capital stock of \$50,000. Company owns nearly 2000 acres coal and red and brown ore and pyrites lands in North Alabama, and has large coal-mining plant now in operation at Sligo, Ala. W. E. Knox is president; J. A. Blount, vice-president, and J. W. Gilliland, secretary.

Huntsville—Knitting Mill.—W. I. Wellman, president of Farmers and Merchants' National Bank, has proposition from New York parties to establish a \$150,000 knitting mill in Alabama.

Huntsville—Brick Works.—North & Winston will establish works with daily capacity of 40,000 brick.

Munford—Laundry and Soap Factory.—The establishment of a steam laundry and soap factory is contemplated. Address H. A. Stewart.*

Opelika—Electric-light Plant.—It is reported that Prof. A. St. C. Dunstan of Auburn contemplates building an electric-light plant at Opelika.

Ozark—Cotton-oil Mill.—The Ozark Cotton Oil Co. has been incorporated, with capital

stock of \$30,000, by Judge Carmichael, president; L. W. Knob, secretary, and H. M. Sessions, treasurer.

ARKANSAS.

Beirne—Furniture Company.—The Beirne Furniture Co. has been incorporated, with capital stock of \$10,000, by James G. Clark, president; W. E. Yeager, vice-president, and Harvey S. Gingrich, secretary.

Harrison—Lead and Zinc Mines.—The Denison Lead & Zinc Mining Co., reported recently as incorporated, has organized for the development of lead and zinc lands near Harrison and awarded contract for completion of a 100-ton mill. Address A. D. Arbest, secretary and treasurer.

Monette—Gin.—The Monette Gin Co. has been incorporated, with capital stock of \$10,000. W. H. Jones is president; A. Bertig, vice-president, and J. T. Blankenship, secretary and treasurer.

Monticello—Cotton Mill.—Endeavors are being made to organize a cotton-mill company. Local investors will subscribe \$50,000 to \$75,000 of the stock if an experienced manufacturer can be secured to invest. W. A. Brown, president Board of Trade, can be addressed.

Wilmot—Oil Mill.—The Wilmot Cotton Oil Mills have been incorporated, with capital stock of \$20,000. J. B. Wooten is president; William Gaines, vice-president; A. E. Jackson, secretary and treasurer.

FLORIDA.

Bartow—Telephone System.—Leon Hebb will establish a telephone system.*

Bartow—Phosphate Mines, etc.—J. N. Hooker has sold for himself and others 570 acres of phosphate lands to Boston parties, who will develop and erect a new phosphate plant.

Fort Meade—Saw-mill.—The Childers Company has installed new machinery, including circular saws, etc.; John F. Marsh, manager.

Gainesville—Saw-mill.—Dr. J. L. Kelly has purchased timber lands on Prairie creek, and will build a saw-mill.

Jacksonville—Cold-storage Plant.—Adams & Richardson have installed refrigerating machinery.

Jacksonville—Mercantile.—The Florida Grocery Co. has been incorporated, with capital stock of \$100,000, by C. Downing and others.

Miami—Cannery, etc.—The Tropical Plantation Co. has been incorporated under laws of New Jersey, with capital stock of \$100,000, for planting a 100-acre orange grove near Miami and to establish a cannery and manufacture jelly and marmalades from guavas. William M. Brown is president; Charles H. Garthside, vice-president, and E. T. Byington, general manager.

Ocala—Merchandise.—Chartered: Carmichael & Son Co., with capital stock of \$50,000, to conduct a general merchandise business and operate an ice factory.

Pensacola—Produce.—Chartered: The Gonzales Produce Co., with capital stock of \$10,000; John McDavid, president.

Pensacola—Cigar Factory.—Chartered: La Colonia Cigar Manufactory, with capital stock of \$5000, by Patricio Martinez, Norberto B. Tuero and Crispin P. Cabrera.

Tallahassee—Cotton-oil Mill.—G. N. Henson of Chattanooga, Tenn., is with others erecting a cottonseed-oil mill at Tallahassee, and not at Monticello, as was recently reported.

Tampa—Hardware Company.—The Tampa Hardware Co., S. L. Varnadoe, president, will increase its capital stock from \$15,000 to \$50,000.

GEORGIA.

Arabi—Cannery.—T. A. Royal & Son, and not T. J. Royal, will build the cannery lately mentioned.

Atlanta—Umbrella Factory.—A. F. Liebman, 28 Peachtree street, contemplates manufacture of umbrellas and parasols.*

Austell—Improvement Company.—J. S. Lehman, J. F. Funk, A. K. Funk and A. B. Kolb of Elkhart, Ind., and Noah Brunk of Austell have incorporated the Austell Improvement Co., with capital stock of \$100,000, for improving real estate, manufacturing lumber, developing water-power for generating electricity, etc.

Baxley—Syrup and Barrel Factory.—The Appling Syrup Co. will incorporate, with

capital stock of \$5000, to refine cane syrup under a new process which clarifies and prevents fermentation; company will probably manufacture its own barrels. George D. Lowe will give information.

Calhoun—Cotton Mill.—Efforts are being made to organize a \$200,000 stock company for the establishment of a cotton mill. W. P. Dodd can be addressed.

Cartersville.—T. R. Jones, one of the incorporators of the Fairfield Mills, noted last week, states that the company will not erect any mill, being reorganization of a woolen mill at Fairfield, Ill., which desired charter under Georgia laws.

Cedartown—Bridge.—The Birmingham & Atlantic Railroad Co. will construct the bridge to span the Coosa river, lately erroneously reported to be built by a coal and iron company. Office of company is at Talladega, Ala., and Eugene Zimmerman (of Cincinnati) is president.

Cedartown—Coal Mines.—The Alabama & Georgia Iron Co. (not Georgia & Alabama Coal & Iron Co., lately erroneously reported) will construct two four-log washers and one two-log washer and open new coal mines, increasing output largely.

Clarksville—Cotton Mill and Tobacco Factory.—Efforts are being made to organize a stock company for the establishment of a cotton mill and tobacco factory; correspondence solicited. Address J. H. Hicks.

Columbus—Showcase Factory.—J. F. Weathers & Bro. will establish a showcase factory, with daily capacity of from twenty-five to thirty cases; machinery has been ordered.

Columbus—Naval-stores Company.—T. E. Golden and others have incorporated the Merchants & Naval Stores Transportation Co., with capital stock of \$50,000.

Dublin—Woodworking Factory.—A company will be chartered, with capital stock of \$5000, and privilege of increasing to \$50,000, for the manufacture of baseball bats, hoe, axe and broom handles. Names of interested parties will be announced later.

Dublin—Cannery.—The Orchard Canning Co. has been incorporated, with capital stock of \$5000 and privilege of increasing to \$50,000, for the establishment of a cannery. William J. Shewmake of Savannah, Ga., is interested.

Euharlee—Cotton-oil Mill.—Efforts are being made to organize company for establishment of cottonseed-oil mill. Address H. H. Milam, secretary of Euharlee Farmers' Club.

Glades (not a postoffice)—Gold Mines.—T. R. Clemons will purchase stamp mill to assist in developing 6000 acres of gold lands. Letters addressed to Dahlonga, Ga., will probably be delivered.

Griffin—Cannery.—Julius W. Gresham will establish a cannery with capacity of 2500 cans of goods per day.

Hoschton—Flour Mill.—Braserton Bros. & Cooper are installing a complete roller mill of fifty barrels capacity.

La Grange—Cotton Mill.—The Unity Cotton Mills, lately reported, has organized, with C. V. Truitt, president, and Fuller E. Calloway, secretary-treasurer. The capital stock of \$100,000 has been oversubscribed, and efforts are being made to make it \$200,000.

Macon—Packing, etc., House.—Howell G. Leak and W. L. Henry have incorporated the W. L. Henry Co. to conduct a general slaughtering and packing business; capital stock \$5000.

Newnan—Gin and Mill.—C. C. Hanson, J. D. Johnson, Edgar Dominick, J. C. Harris and others have incorporated the Planters' Gin & Mill Co., with capital stock of \$3500, for the ginning of cotton, manufacturing of cottonseed oil, etc.

Pearson—Saw-mill.—R. F. Goette will build saw-mill with daily capacity of 60,000 feet.

Savannah—Refinery.—The Southern Cotton Oil Co. will rebuild its refinery, recently reported burned; L. W. Haskell, manager.*

Senola—Cotton Factory.—The establishment of a cotton-batting factory is contemplated. Address Row & Hopple.*

Thomasville—Corn Mill.—T. J. McCartney will install a cornmeal and feed mill.*

KENTUCKY.

Lair—Lead Mines.—A. L. Slavers, Thomas Knouss and W. M. Vrawford of Columbus, Ohio, will, it is said, develop lead mines near Lair.

Louisville—Tobacco Factory.—The Manufacturers' Tobacco Co. has increased its capital stock from \$250,000 to \$350,000.

Louisville—Distilleries.—J. Rosenbaum, R. G. Shipman, H. F. Spooner, G. H. Westfall, all of New York city, and T. Darlington of Greenwich, Conn., have incorporated the Mercantile Club Distillery Co. and the Darlington Distillery Co., each with capital stock of \$5000.

Owensboro—Street Improvements.—The city has issued \$200,000 of bonds for street improvements; W. P. Small, mayor.

Paducah—Barrel Factory.—J. D. Hollingshead of Chicago will erect a coopersage plant in Paducah with daily capacity of 2000 packages; will manufacture tight barrels and will invest about \$75,000.

LOUISIANA.

Abbeville—Artesian Well.—The city has contracted with Pickett & Erwin to sink a well 200 feet or more deep with an eight-and-one-quarter-inch pipe to furnish water for the town and fire department.

Crowley—Rice Mills.—Lichenstein, Hechinger & Co. of New Orleans, La., and A. Kaplan of Crowley have purchased the Estherwood Rice Mill Co., Limited, and two-thirds interest in the Miller-Morris Canal & Irrigation Co., Limited, for \$100,000. The Eureka Rice Mill has been organized, with capital stock of \$60,000, and A. Kaplan, president; I. M. Lichenstein, vice-president, and Charles J. Bier, secretary and treasurer, to operate the Estherwood mill, while the canal company will be operated under the old name, with Eureka officers in control.

Crowley—Rice Company.—The Rice Distributing Co., Limited, has been incorporated to conduct a general rice brokerage business with James K. Webster, president; Chas. H. Zwick (of Hamilton, Ohio), vice-president, and Karl H. Zwick (also of Hamilton), secretary and treasurer; capital stock is \$25,000. Address the president.

Eola—Sugar Mill and Refinery.—W. H. Haas is having new machinery installed and increasing capacity of his sugar mill and refinery. Capacity will be 350 tons per day. Robert & William Webster of Alexandria have contract.

Many—Saw-mill.—Alex. Gilmer of Orange, Texas, has sold 8000 acres of yellow-pine lands near Many, La., to Bowman, Hicks & Co. of Kansas City, Mo., for \$96,000; purchasers will build saw-mill.

New Iberia—Electric-light Plant and Water-works.—T. W. Nicol of Mobile, Ala., has been engaged as consulting engineer for the proposed water-works and electric-light plant at New Iberia. It is said that M. T. Lewman & Co. of Louisville, Ky., will be awarded the contract.

New Orleans—Rice Cultivation, etc.—The Southwestern Rice & Canal Co., Limited, has been incorporated by Mervine Kahn of Rayne, La.; Simon Pfeiffer, Henry Kahn, C. A. Lowry and others, to engage in the production of rice and other cereals. The capital stock is \$250,000.

Ruston—Electric-light Plant and Water-works.—The city will issue \$25,000 of bonds for construction of electric-light and water-works plants. Address "The Mayor."

Selma—Saw-mill.—The Boston Lumber Co., Limited, has been incorporated to erect and operate saw-mill and conduct general lumber business; capital stock \$40,000, and principal office at Alexandria, La. W. W. Sanders is president; George S. Lacey, vice-president, and J. H. Smelser, secretary and treasurer.

MARYLAND.

Baltimore—Tin-can Factory.—H. C. Campen & Co. will rebuild their \$20,000 tin-can manufactory reported burned.

Baltimore—Milling.—Chartered: The Hooper Pneumatic Milling Co., by Charles H. Unverzagt and others; capital stock \$10,000.

Baltimore—Can Factory.—H. C. Campen & Co. will rebuild their tin-can factory reported burned.

Baltimore—Stopper Factory.—The Ideal Stopper Co. has been incorporated for the manufacture of stoppers for bottles by Herman T. Gay, George E. Faust, Levi C. Condon and others; capital stock \$100,000.

Baltimore—Brick and Terra-cotta Works.—The Champion Brick Co. has been incorporated, with capital stock of \$60,000, for the manufacture of brick and terra-cotta pipe. Jacob Klein, George R. Willis, Francis T. Homer and others are the incorporators.

Baltimore—Water-works.—The Baltimore County Water & Electric Co., previously reported incorporated, proposes to make extensive additions to its properties and pipe lines. It will lay pipes into Govanstown and drill another artesian well at Towson. Plans are being prepared for dam and pumping station at Avalon, on the Patapsco river; water will be obtained from a series of artesian wells that are being sunk, covering a distance of two miles. The capacity of the new plant when completed will be about 3,000,000 gallons per day; Thomas McGinness, president; Albert H. Wehr, secretary, and Joseph Schreiber, chief engineer.

Frederick—Bridge.—An iron bridge to cost \$12,000 will be constructed across the Monocacy river at Reich's Ford. Address "The County Commissioners."

Hagerstown—Stock-yards Company.—The Hagerstown Stock-Yards Co. has been incorporated, with capital stock of \$8000, by William S. Griffith of Barnesville, Md.; Marshall W. Wilson of Raleigh, N. C.; Edward P. Cahill of Hancock, Md.; Frank M. Misch of Hagerstown and others. Address the last named.

Laurel—Water-works.—Hill, Quick & Allen will prepare plans and specifications for the city's proposed water-works system. Address "Secretary Water Board."

Washington, D. C.—Cabinet Factory.—The Thelma Manufacturing Co. has been incorporated for the manufacture of folding bath cabinets and other articles. F. G. Dietrick is president; F. J. Paff of Alexandria, Va., vice-president, and L. Dietrick, secretary. The capital stock is \$25,000.

MISSISSIPPI.

Centerville—Cotton-oil Mill.—Company previously reported for establishment of cottonseed-oil mill will be known as the Centerville Cotton Oil Co., organized, with capital stock of \$25,000, by L. B. Robinson, R. Whitaker, J. A. Reahed, R. Whitaker, H. M. Quinn and others; contract has been awarded. Address H. M. Quinn.

Excelsior Springs.—Chartered: The Music Hall Bathhouse Co., with capital stock of \$15,000, by E. L. Morse and others.

Grenada—Saw-mill.—W. W. Trussell and Robert Kincaid are building a saw-mill.

Laurel—Saw-mill.—The Jackson Land & Lumber Co. is investing in timbered lands with a view of saw-milling at a later period.

Loxahoma—Cotton Gin.—The Loxahoma Gin Co. has been incorporated, with capital stock of \$5000.

Meridian—Lumber Mill.—The Union Lumber Co. has been incorporated by Edgar Spinks, E. A. Spinks, C. M. Spinks and A. B. Amis; capital stock \$10,000.

Natchez—Cotton Compress.—Sam H. Lowenburg, W. P. Reese, C. D. Hill, E. K. Thompson of Nashville, Tenn., and Robert S. Keyser have incorporated the People's Compress & Warehouse Co. for establishment of a 2000-ton hydraulic press with capacity of 75 to 100 bales per hour. Capital stock is \$60,000, with privilege of increasing to \$100,000.

Nettleton—Cotton Compress, Gin and Grist Mill.—James Randolph will rebuild his gin and grist mill burned several months ago; round-bale compressing machinery will also be installed.

Port Gibson—Electric-light Plant and Water-works.—The city will issue \$12,000 of bonds for improving its water-works and electric-light systems, recently reported. Address "The Mayor."

Vicksburg—Saw-mill, Timber Lands, etc.—Lyon, Gary & Co. of Chicago, Ill., have purchased 50,000 acres of timber lands in Issaquena county, and will erect mills for development.

MISSOURI.

Farmington—Lead Mines.—Chartered: The River Valley Lead Co., with capital stock of \$50,000, by E. E. Swink, R. A. Swink, J. F. Jones and others.

Hermann—Transportation.—Chartered: The Missouri & Gasconade River Transportation Co., with capital stock of \$2500, by W. L. Heckmann, Sr., and others.

Joplin—Zinc Mines.—The Anglo-American Zinc Co., Limited, has been incorporated, with capital stock of \$750,000, by S. S. Rasp of Brooklyn, M. W. Geisinger, C. B. Ritter and others of New York, N. Y.

Joplin—Mining.—Chartered: The Edith Mining Co., with capital stock of \$10,000, by F. J. Tygard of Butler, J. B. Glover, Jr., J. Roach and others.

Joplin—Lead and Zinc Mines.—Chartered: The Big Springs Lead & Zinc Co., with capital stock of \$90,000, by F. W. Paschal, E. R. Paschal, George L. Jarrett and others.

Joplin—Lead and Zinc Mines.—The Joplin Lead & Zinc Co. has purchased eighty acres of lead and zinc lands in Jasper county, with several producing shafts and two mills; also a 40-acre fee and an 80-acre lease at Wentworth.

Kansas City—Construction Company.—The Missouri & Arkansas Construction Co. has been chartered, with capital stock of \$100,000, by H. G. Rest, W. E. Turner, W. A. Thomas and others.

Marshall—Wallpaper Company.—Chartered: The J. H. Collins Wallpaper Co., with capital stock of \$3000, by J. H. Collins and others.

Missouri City.—Chartered: The Daylight Prism Co., with capital stock of \$100,000, by W. D. Mahoney, C. E. Carroll, W. J. Lohmann and others.

St. Joseph—Mining.—The Andrew Jackson Mining Co. has been incorporated, with capital stock of \$64,000, by John Townsend, J. C. Wyatt, H. L. Ewing and others.

St. Louis—Coal Company.—Chartered: The Hull-Mosser Coal Co., with capital stock of \$5000, by E. B. Hull, E. Mosser and W. V. Mosser.

Sturgeon—Lead and Zinc Mines.—The McBride Lead & Zinc Co. has been incorporated, with capital stock of \$100,000, by S. W. Downing, W. R. McBride, R. B. Summers and others.

Wentworth—Lead and Zinc Lands.—See item under Joplin, Mo.

West Plains—Smelter.—The company of which E. H. Gregg is president; S. Shoemaker of Ferguson Falls, Minn., vice-president; C. L. Coyner, secretary; Dr. H. T. Smith, treasurer, and W. F. Gordon, general manager, will build a new smelter. Address the general manager.

Willow Springs—Mining.—Chartered: The Bona Mining Co., with capital stock of \$10,000, by J. W. Voorhers, J. C. Brown and others.

NORTH CAROLINA.

Franklin—Mica Mines.—Dr. G. A. Munch of Detroit, Mich., has purchased and will develop extensively the mica mine on Lyle Knob in Macon county, lately operated by Detroit Mica Mining Co.

Goldsboro—Navigation.—Chartered: The Goldsboro Navigation Co., with capital stock of \$6000, by J. A. Norwood, Jr., W. T. Yelverton, George C. Royall and Thos. H. Holmes.

Greensboro—Lighting and Power Plant.—The Guilford Power Co. has applied for franchise for establishment of an electric-lighting and power plant.

Greensboro—Water-works.—The city will issue bonds and advertise for bids for construction of a system of water-works. Address "The Mayor."

Greenville—Cold-storage Plant, etc.—Alexander Finlay (operating ice factory) will install a cold-storage plant 12x20 feet, with capacity for about thirty tons of ice; a slaughter plant will also be established and machinery installed for the manufacture of sausage and pickled meats.

Greenville—Knitting Mill.—The Greenville Knitting Mills has been incorporated, with capital stock of \$10,000, for establishment of a knitting mill with capacity of 100 dozen suits men's underwear per day. L. I. Moore is president; D. E. House, vice-president, and W. S. Atkins, secretary and treasurer. Address the secretary.*

High Point—Laundry.—The steam laundry reported lately to be established will be operated as the High Point Steam Laundry; O. T. & R. E. Wilkerson, proprietors.

High Point—Bed Springs and Lounge Factory.—The National Bed Springs & Lounge Co. will erect a new factory.

Lincolnton—Cotton Mill.—A. M. Price will build a cotton mill, as was reported last week. The mill will have 5000 spindles, costing complete about \$100,000, and contracts will be made in the near future.*

Morven—Gin.—Gardner, Liles & Co., manufacturers of lumber, have recently installed 50-horse-power boiler and 40-horse-power engine, and contemplate installing cotton gin next season.

Raleigh—Laundry.—The Capital Steam Laundry has been established; G. E. Leach, proprietor.

Raleigh—Cotton Gin and Lumber Mill.—The Rowland Manufacturing Co. has been incorporated, with capital stock of \$3000, to manufacture lumber and gin cotton.

Reidsville—Flour Mill.—J. H. Walker & Co. will increase the capacity of their mill from 85 to 150 barrels per day; contract for machinery not awarded.

Yadkinville—Flour Mill.—James Hamlin will build a roller flour mill, and has not awarded contract for machinery.

SOUTH CAROLINA.

Charleston—Water-works.—The organization of the Charleston Water & Light Co., with capital stock of \$100,000, for the construction of water-works, etc., is proposed. Bonds for \$1,500,000 would be issued. Address "The Mayor."

Charleston—Cotton-oil Mill.—A. C. McFall is superintendent of the Charleston Cottonseed Oil Mill, reported during the week, and may be addressed for information.

Charleston—Mercantile.—Chartered: The Ostendorf-Ansel Company, by W. F. Ostendorf and others; capital stock \$6000.

Conway—Iron Works.—The Conway Iron Works has been incorporated, with capital stock of \$3000, by W. P. Jollie, president; James L. Dozier, vice-president, and Jesse H. Jollie, secretary and treasurer.

Hartsville—Cotton Mill.—The Hartsville Cotton Mill has been incorporated, with capital stock of \$250,000, for the establishment of a 10,000-spindle mill, by J. L. Coker of Hartsville, T. E. Moore of Spartanburg and D. A. P. Jordan of Greenwood.

TENNESSEE.

Bradford—Flour Mill.—J. T. Cain & Son have purchased the roller mill of W. H. Papps & Son, and will add new machinery.

Bristol—Broom Factory.—The establishment of a broom factory with daily capacity of from fifteen to twenty dozen brooms per day is contemplated. Address G. Pryor.*

Brownsville—Ginnery.—The Farmers' Gin Co. will consolidate with the Bond Gin Co. Among those interested from Memphis, Tenn., is W. D. Roberts.

Chattanooga—Light and Power Plant.—Chattanooga Light & Power Co. will repair that part of its plant recently damaged by fire; D. J. O'Connell, general manager.

Chattanooga—Roofing Company.—The Chattanooga Steel Roofing Co. will enlarge its plant to double capacity. Improvements will cost \$10,000.

Chattanooga—Broom and Mop Works.—R. M. Watkins and J. R. Lefebvre have purchased the broom and mop works of Collin Dugger; will enlarge and operate same.

Clarksville.—The Tennessee Post Driver Co., reported recently as incorporated, will manufacture a machine for driving fence-posts; H. C. Merritt, president.

Columbia—Hay Press, etc., Factory.—The Columbia Hay Press & Manufacturing Co. has been chartered, with capital stock of \$5000, by A. F. Brown, W. J. Oakes, H. W. Thomas and others.

Crossville—Spike and Handle Factory.—L. R. Pennock and Philip Wheat will establish a spike and handle factory.

Humboldt—Cotton Mill.—The Humboldt Cotton Mills, reported last week as incorporated, will build a \$100,000 plant, probably to start with 3500 spindles and 100 looms. Contracts for erection and equipment will be awarded soon. J. R. Jarrell or C. H. Ferrell can be addressed.*

La Follette—Coke Ovens.—It is reported that H. M. La Follette and others have begun the construction of 300 coke ovens under the supervision of Everhart Bier of Uniontown, Pa.

Lewisburg—Water-works.—Scott D. Davis, W. M. Carter and Otto McGahey have been appointed a committee to investigate the cost and secure plans for the construction of a system of water-works.

Mayland (not a postoffice).—Saw-mills, Stave, Spike and Handle Factories.—McElwee & Jackson of Knoxville, Tenn., have established two saw-mills at Mayland; W. Berry will establish a stave factory and L. B. Pennock, spoke, handle factory and saw-mill.

Memphis—Manufacturing.—Chartered: The Memphis Home Manufacturing Co., with capital stock of \$15,000, by T. B. Hatchett, Ford N. Taylor, James Cunningham and others.

Memphis—Mercantile.—Chartered: The Hill-Fontaine Company, with capital stock of \$100,000, by Napoleon Hill, Noland Fontaine and others.

Memphis—Foundry and Machine Shop.—W. R. Rodgers, C. B. Rodgers, J. T. Rodgers, J. J. Faulkner and Percy C. Clarke have incorporated the Faulkner Round Bale Compress Co. for buying and selling cotton presses, etc., and to conduct foundry and machine shop; capital stock \$100,000.

Memphis—Floral Company.—The Memphis Floral Co. has been incorporated, with capital stock of \$10,000, by C. H. Hune, Albert Hirsch, M. L. Click and others.

Mountain City—Flour Mill.—Edward Butler and James Mitchell will erect a roller flour mill.*

Nashville.—Chartered: The Smith-Huggins Company, with capital stock of \$15,000, by F. M. Smith, J. L. Huggins, W. V. Moore and others.

Nashville—Mills.—The Standard Mills Co. has been incorporated, with capital stock of \$10,000, by E. L. Rettman, E. S. Moore, A. A. Youngblood and others.

Nashville—Coal Mines.—The Italian Blue Gem Coal Co. has been incorporated, with capital stock of \$10,000, by Peter Zechlin, R. B. Baird, J. A. Fowler, H. A. E. Parsons and W. T. Lewis.

Nashville—Hat Factory.—The Sperry, Handy & Walsh Hat Co. has been incorporated, with capital stock of \$100,000, by Henry Sperry, C. R. Handy, O. J. Walsh and others.

Shelbyville—Flour Mill.—J. F. Boyd will install new water-wheels and remodel his corn mill; will also install machinery for grinding feed, crushing ear corn and grinding corn and cob mixed; contract for machinery not yet placed.

Silvicola—Flour Mill.—John Lessley has purchased the J. M. Newland burr mill, and will either put in rolls or repair the burr mill.

TEXAS.

Austin—Publishing.—The News Publishing Co. has been chartered, with capital stock of \$10,000, to conduct printing and publishing business, by Henry Hutchings, W. H. Stacy and A. C. Baldwin.

Beaumont—Rice Mill, etc.—The Jefferson County Rice Co. (Incorporated, as recently reported) has purchased 10,000 acres of land, and will cultivate 1000 in rice this season. Address for particulars J. E. Broussard.

Bonham—Electric-light Plant.—The city is investigating the advisability of erecting an electric-light plant. Address "The Mayor."

Burton—Oil Mill.—The Burton Cotton Oil Co. has been incorporated, with capital stock of \$20,000, for the erection of an oil mill, by William Bauer, Henry Fuchs, Thos. Watson, H. Knittel and others.

Cleveland.—Frank Darst of Galesburg, Ill., has purchased timber lands near Cleveland and is building saw-mill.

Corsicana—Oil Company.—The Dallas Petroleum Co. has been incorporated, with capital stock of \$10,000, to prospect for oil, coal, etc., by R. E. Prince of Corsicana; Bennett Hill and William Thompson of Dallas.

Corsicana—Petroleum Company.—Chartered: The Central Petroleum Co., with capital stock of \$100,000, by Emil Rautman, John B. Dickey and Fred L. Bibby.

Evergreen—Ginnery, etc.—Ellis Hoot & Co. will build \$3000 ginnery, reported lately to be built by McBride & Hoot, and may possibly put in saw-mill later on.

Flatonia—Cotton Compress.—A cotton compress will be established. Those interested are T. T. McCommon, W. Mater, Arlin & Lane and others.

Honey Grove—Flour Mill and Gin.—A company has been organized and purchased the Honey Grove Roller Mill, and will put it in operation; capacity of the cotton gin will be doubled.

Houston—Mercantile.—The Finnigan Company has been incorporated to conduct a general hide and wool business, with capital stock of \$150,000, by John Finnigan of New York and others.

Kirbyville—Saw-mill.—Silas B. Conn of Kirbyville and Robert C. Withers of Buna will build a 40,000 feet capacity saw-mill.

Morgan—Oil and Gas.—The Morgan Oil & Gas Co. has been chartered to prospect for oil and gas by R. P. Lowe, H. F. Scheer and Louis Garver; capital \$4000.

Nacogdoches—Land Company.—The Huntington Land & Townsite Co. has been chartered, with capital stock of \$10,000, by E. A. Blount, B. S. Wettermark and others.

San Elizario—Canal and Land Company.—John A. Harper, Maurice McKelligan and Millard Patterson, all of El Paso, have incorporated the Island Canal & Land Co., with capital stock of \$10,000, to construct an irrigation system.

Sherman—Telephone System.—A company has been organized, with capital stock of \$50,000, for the construction of a telephone system from Sherman to Denison. Names of interested parties will be announced later.

Texas City—Real Estate.—Chartered: The Oswego Company, with capital stock of \$30,000, by Geo. E. Whitney, C. L. Crandall and J. R. Myers.

Tyler—Music Company.—The Tyler Music Co. has been incorporated, with capital stock of \$5000, by J. R. England and others.

Velasco—Oil Mill.—F. Doucet and B. W. Elder of Torreon, Mexico, are investigating with a view to purchasing the Velasco oil-mill plant.

Victoria—Road Improvements.—It has been decided by popular vote to issue the \$45,000 of bonds for road improvements. Address "The Mayor."

Waco—Bridge.—Bonds will be issued for construction of a steel bridge on stone piers across the Brazos river. Address "The Mayor."

Waxahachie—Grain Company.—Chartered: The Thompson Grain Co., with capital stock of \$10,000, by D. H. Thompson and others.

VIRGINIA.

Blacksburg—Mining.—Chartered: The Blacksburg Mining & Manufacturing Co., with capital stock of \$25,000, by R. G. Newlee, K. Black, A. Black, J. H. Kipp and others.

Bristol—Coal and Iron Mines.—Chartered: The Virginia Iron, Coal & Coke Co., by G. L. Carter, W. R. Wells and others.

Cook—Buckwheat Mill.—Dr. E. M. Wilkinson will install buckwheat machinery; contract not awarded.

Covington—Machine Shops.—The Covington Machine Co. will double its capacity, as lately reported, equipping its shops with hydraulic cranes, air hoists, pneumatic tools, etc.

Danville—Flour Mill.—The Dan Valley Mills will increase its capacity from 250 to 500 barrels per day.

Danville—Laundry.—The Star Laundry Co. has been incorporated to conduct a general laundry, dyeing and cleaning business, by James B. Pace, president; Robert Acree, secretary and treasurer; capital stock to be not more than \$10,000 nor less than \$3000.

Hampton—Telephone Company.—The Hampton Telephone Co. will increase capital stock from \$15,000 to \$25,000 for making improvements.

Lambert's Point—Pier.—The Norfolk & Western Railroad has had plans prepared for a large coal pier at Lambert's Point; L. E. Johnson, Roanoke, Va., general manager.

Louisa—Telephone System.—The Louisa Telephone Co. has been incorporated, with capital stock of \$25,000, by J. J. Porter, F. W. Sims and others.

Luray—Water-works.—It is reported that surveys for the proposed \$55,000 water-works system have been completed. Address "The Mayor."

Lynchburg—Telephone System.—The Long Distance Telephone Co. has been organized by J. R. Kemper (president) of Staunton, Va.; J. C. Robinson of Richmond, Va.; F. W. Sims of Louisa, Va.; Charles W. Scott of Lynchburg and others for the establishment of long-distance telephone systems throughout Virginia.

Newport News—Fruit and Steamship Company.—The Tropical Fruit & Steamship Co. has been incorporated under laws of Maine, with capital stock of \$500,000, to conduct a general fruit and transportation business. Martin H. K. Paulsen of Baltimore, Md., is president.

Norfolk—Lumber.—Chartered: The Southampton Lumber Co., with capital stock of \$25,000, by H. L. Smith, J. E. Duke, R. W. Shultice and others.

Richmond—Excelsior Factory.—The establishment of an excelsior factory is contemplated. Address John M. Lewis.*

Schuyler—Electric-power Plant, etc.—The Virginia Soapstone Co. has constructed a dam across Rockfish river, and will generate electric power of about 250 horse-power for the operation of its works and factory and to operate electric railway. The addition to the company's plant is about completed.

South Boston—Hat Factory.—Henry Bernann contemplates establishing a hat factory.*

Tazewell—Coal Mines.—The Coal Creek Coal Co. has been incorporated for mining coal and other minerals, by R. R. Henry, G. W. Gillespie, S. C. Graham and others; capital stock \$30,000.

WEST VIRGINIA.

Bridgeport—Electric-light Plant.—The Wheeling Electric Light Co., Wheeling, W. Va., has purchased and will rebuild the Bridgeport electric-light plant; machinery has been ordered.

Charleston—Coal and Coke Company.—The Kanawha Fuel Co. has been incorporated to conduct general coal and coke business, with capital stock of \$200,000; incorporators, C. J. Whittenburg of New York city, M. O. Brooks of Richmond, Va.; J. F. Brown, R. G. Quarrier and others of Charleston.

Charleston—Coal, Coke and Timber Company.—The Southwest Iron, Coal, Coke & Timber Co. has been chartered by William G. Sheen and J. Harvey Wood of Bristol, Tenn.; W. J. Overbeck of Cincinnati, Ohio;

J. W. St. Clair of Fayetteville, W. Va., and others. Address the last named.

Charleston—Coal Mines, etc.—The Lens Creek & Coal River Railway Co. has been incorporated, with capital stock of \$200, by G. W. McClintic, H. McC. Anderson, J. N. Carnes and others.

Fairmont—Publishing.—Chartered: The Index Publishing Co., with authorized capital of \$25,000, by Clarence L. Smith and others.

Romney—Telephone System.—Jacob L. Shauholtzer of Stony, W. Va., and others have incorporated the Rio Grande Telephone Co. for construction of a system from Rio Mists, Va., to Romney, W. Va.; authorized capital \$2000.

Rowlesburg—Water-works.—The city does not expect to construct water-works this year, as had been reported; H. H. Wheeler, mayor.

Summersville—Telephone System.—Alderson & Horan, A. F. Rader, J. C. Dunbar, J. M. Hutchinson and others have incorporated the Gauley Bridge, Summersville & Camden Telephone Co. for the construction of a telephone system from Gauley Bridge to Camden-on-Gauley and other points; capital stock is \$25,000.

Welch—Coal and Coke Company.—The Big Sandy Coal & Coke Co. has been incorporated by Hugh F. O'Neill and Charles F. O'Neill of Buffalo, N. Y.; Joseph Griffiths of Pittsburg, Pa., and others; authorized capital \$100,000.

BURNED.

Ashland, Ky.—H. Herman Company's saw-mill; loss \$15,000.

Dallas, Texas.—William R. Spann's dairy; estimated loss \$15,000.

Kansas City, Mo.—Union Elevator Co.'s elevator; estimated loss \$100,000.

Mobile, Ala.—F. C. Turner & Co.'s sash, door and blind factory; estimated loss \$30,000.

BUILDING NOTES.

Augusta, Ga.—Business Buildings.—J. B. White will erect a five-story structure; A. F. and A. Masons will re-erect their temple.

Baltimore, Md.—Church.—George C. Haskell will prepare plans for chapel of the Madison Avenue M. E. Church; will be of stone, 66x50 feet, and cost \$30,000.

Baltimore, Md.—College Building.—John Stack & Sons have contract for erection of addition to Mount St. Joseph's College; it will be four stories, 22x25 feet, and cost \$4500; plans for the large building to be erected on the college grounds at a cost of \$40,000, now being prepared by Thomas C. Kennedy, will be completed in a few weeks.

Baltimore, Md.—Custom-house.—The designs of Hornblower & Marshall of Washington, D. C., have been accepted for the proposed custom-house at Baltimore; building will be five stories, of pink granite, etc.

Beaumont, Texas—Natorium.—The Beaumont Natatorium Co. will be chartered by August L. Nelson, D. Call, M. K. Fletcher and others for the erection of a natatorium. Address the first named.

Beaumont, Texas—Rice-mill Building.—M. A. McKnight has contract for erection of rice-mill building and warehouse for Justave A. Jahn & Co.

Belair, Md.—Bank Building.—D. J. Shanahan of Fallston, Md., has contract for erection of the building for the Second National Bank at Belair; it will be of brick, with stone trimmings, 30x60 feet, and cost \$20,000.

Birmingham, Ala.—Office Building.—Hetterman Bros. & Co. of Louisville, Ky., have purchased site at \$100,000 and had plans prepared for a 10-story steel, brick and stone office building 100x100 feet, to contain electric-light plant, heating and ventilating apparatus, elevators and all modern improvements.

Birmingham, Ala.—Hotel.—The Hotel Cynthia Company will be organized, with capital stock of \$150,000, for the erection of a 10-story brick, steel and stone fireproof hotel 100x100 feet on the T. C. McDonald property. Mack Drennen of Drennen & Co. may be addressed.

Bowling Green, Va.—Jail.—The county has awarded contract to B. F. Smith Fireproof Construction Co. of Washington, D. C., for the erection of a county jail to cost \$5000. B. F. Smith prepared the plans.

Cedartown, Ga.—Store and Office Building.—William J. Harris will erect a two-story brick store and office building.

Centerville, Miss.—Hall.—The Knights of Pythias will erect a two-story brick hall 40x

70 feet; contract not awarded. Address Hillie M. Quinn.

Charleston, Miss.—Courthouse.—Proposals will be received until July 2 for all labor and material required for erection and completion of addition to a two-story courthouse for Tallahatchie county, according to plans and specifications on file at county office and office of architect, W. Chamberlin & Co., Knoxville, Tenn. Bids must be accompanied by certified check for \$300. Usual rights reserved. Address bids to "President Board of Supervisors."

Charlotte, N. C.—Hotel.—The Chamber of Commerce has appointed a committee to arrange for the building of a modern hotel. F. C. Abbott, Frank P. Milburn and E. D. Latta are the committee, and have the matter in hand; \$250,000 to \$300,000 will be the probable cost.

Clarksburg, W. Va.—Hotel.—Charleston parties have prepared plans for the erection of a \$200,000 hotel at Clarksburg. Address Judge Nathan Goff.

Clarksville, Tenn.—Courthouse.—Contract for rebuilding the county courthouse, recently burned, has been awarded to Charles A. Moss & Co. of Chicago, for \$26,000. Steam heating, gas, electric-light fixtures, clock, bell, etc., are not included in the contract.

Corsicana, Texas—Masonic Temple.—Corsicana Lodge, No. 174, A. F. and A. M., has awarded contract for erection of a three-story lodge building to cost \$10,000.

Crowley, La.—Warehouse and Office Building.—The Rice Distributing Co., Limited, Jas. R. Webster, president, will build large warehouse and office building.

Cumberland, Md.—Courthouse.—Sealed proposals will be received until July 3 at office of county commissioners for work and material to be furnished in the execution of certain changes in the courtroom of Allegany county, according to plans and specifications prepared by and on file in office of Thomas C. Kennedy, 113 North Charles street, Baltimore, Md. Usual rights reserved.

Greenville, S. C.—School.—D. J. Anderson has received contract to erect the school building for Furman University. It will be of brick and cost \$3000.

Greenwood, Miss.—School Building.—J. L. Gillespie will receive sealed proposals until June 20 for erection of a school building. Plans and specifications on file at mayor's office and at office of R. H. Hunt, architect, Chattanooga, Tenn. Each bid must be accompanied by certified check for \$250. Bond required and usual rights reserved.

Jackson, Miss.—Statehouse.—Theodore C. Link of St. Louis, Mo., has prepared plans and will supervise the erection of the new capitol building authorized by the legislature at its last session; building will be three stories, 375x93 feet, and cost \$1,000,000.

Laredo, Texas—Jail.—The county commissioners have decided to build a new jail to cost \$40,000. Address "County Clerk."

Louisville, Ky.—Dwelling.—Peter Hotze has had plans prepared for erection of two-story pressed-brick with slate roof dwelling to cost \$25,000.

Louisville, Ky.—Flats Building.—Theophilus Conrad has purchased site for \$7500 and will erect a five-story flats building.

Macon, Ga.—Hotel.—Architect T. Denny of Atlanta, Ga., will prepare plans for a hotel to cost \$100,000 at Macon for the T. C. Dempsey estate.

Martin, Tenn.—College.—The Baptists will build a \$10,000 college. J. E. Kennedy can give information.

Martin, Tenn.—School Building.—The city will probably build a \$10,000 school building to replace the one recently burned; J. E. Kennedy, mayor.

Memphis, Tenn.—Hotel.—The Memphis Hotel Co. has been incorporated, with capital stock of \$300,000, for the erection of a hotel on the site of the old Gayoso Hotel, mention of which has been previously made. Stuyvesant Fish of New York will be president; Col. A. D. Gwynne of Memphis, vice-president; J. S. Aisthorpe of Cairo, Ill., secretary and treasurer, and L. P. Parker of Cairo, Ill., manager. Address manager.

Miami, Fla.—Business Block.—Contractor Hahn will begin work on the J. E. Lummus building, to be of brick, fireproof, 50x115 feet.

Norfolk, Va.—School.—Dwyer & Neff have prepared plans for a four-room annex to school building No. 2 in Brambleton ward. Address "Local Board of Improvement, C. J. Jones, president."

Opelika, Ala.—Cotton-mill Building.—W. A. Andrews has received contract for erection of the proposed Opelika Cotton Mill building, which, with the machinery, will cost \$130,000.

Parkersburg, W. Va.—Hotel and Bank

Building.—The First National Bank has accepted plans for its proposed \$150,000 hotel and bank building; to be seven stories and contain 150 bedrooms, electric-light plant, water system and all conveniences.

Raleigh, N. C.—Warehouse.—The North Carolina Cottonseed Oil Mills has awarded contract for erection of a brick warehouse 150x60 feet.

Richmond, Texas—Depot.—It is reported that the Southern Pacific and the Santa Fe railroad companies will build a union depot at Richmond; H. E. Huntington, second vice-president Southern Pacific Company, New York, N. Y.

Rochelle, Ga.—Schools.—The city will issue \$10,000 of bonds for building schoolhouses. Address "The Mayor."

Savannah, Ga.—Academy.—Henry Urban will prepare plans for rebuilding Chatham Academy, previously burned. Address Otis Ashmore, superintendent of schools.

Smithville, Texas—Cotton-compress Buildings, etc.—The Smithville Compress Co. has awarded contract to M. M. Turney for the erection of its compress buildings, sheds, etc.

St. Joseph, La.—Schoolhouse.—Bids will be opened June 25 at office of H. A. Garrett for erection of a schoolhouse. Usual rights reserved and \$500 bond required.

St. Louis, Mo.—Hotel.—The Franklin Hotel Co. has been incorporated, with capital stock of \$15,000, by E. V. Matlock and others.

Washington, D. C.—Storehouse.—Sealed proposals will be received at the Department of the Interior until June 30 for erection at government hospital for insane of a storehouse in accordance with plans and specifications to be seen at the hospital or at above department. Proposal forms can be obtained at the department; usual rights reserved; E. A. Hitchcock, secretary.

Williamsburg, Va.—Knitting-mill Building.—Contract for erection of knitting-mill buildings awarded to J. H. Brinson of Hampton, Va., at \$12,439.

RAILROAD CONSTRUCTION.

Railways.

Augusta, Ga.—It is reported that arrangements have been made to build a railroad between Augusta and Tallahassee, Fla., and that the necessary bonds have been placed to insure its completion. D. C. Welch at Augusta is reported as one of the parties interested.

Bentonville, Ark.—J. M. Bayless, president of the Arkansas & Oklahoma Railway Co., advises the Manufacturers' Record that sixteen miles of its proposed line are under construction between its present terminus and the Grand river. This extension will be completed by November 1.

Birmingham, Ala.—The Louisville & Nashville Railway Co. has completed surveys for the branch line to the property of the Warrior Coal & Coke Co., and it is understood that the road is to be built immediately. R. Montfort at Louisville, Ky., is chief engineer of the company.

Bonham, Texas.—The latest report relative to the Sabine Pass & Northwestern Railroad is to the effect that construction work is to begin by July 15, and that contracts have been let. The line is to be built between Sabine Pass and Bonham. W. H. Booker at Bonham is president of the promoting company.

Brandywine, Md.—It is reported that the present management of the Washington & Potomac Railroad has decided to complete this road to Washington from its northern terminus and to Point Lookout at its southern terminus, and that arrangements have been made to float bonds in Germany to finance the undertaking. Henry W. Watson is receiver of the company.

Bryan, Texas.—The work of grading the Calvert, Waco & Brazos Valley division of the Texas & Pacific Railroad has begun in the vicinity of Bryan. It is announced that ground has been secured for the yards and a depot in that town. L. S. Thorne at Dallas is vice-president of the Texas & Pacific.

Chesterfield, S. C.—H. C. Chapman, who is interested in the proposed railroad between Chesterfield and a connection with the Seaboard Air Line, writes the Manufacturers' Record that it is proposed to form a company in the near future, and that estimates are being secured of the cost of the road. It will be seven and one-half miles in length.

Covington, La.—The plan to build a railroad from Covington to Franklinton has been revived, and it is reported that New York parties will become interested. The line, if built, will be thirty miles in length. Among the promoters is H. Ferguson of Covington.

Eagle Lake, Texas.—W. T. Eldridge, general manager of the Cane Belt Railroad Co., advises the Manufacturers' Record that about thirty-five miles of rails will be required for the extension to Quintana in addition to rolling stock.

Elkton, Md.—Subscriptions are about to be received to the stock of the Elkton, Cherry Hill & Chesapeake City Railway Co., which proposes building an electric line between the towns mentioned. Joseph H. Steele at Chesapeake City is one of the promoters of the enterprise.

El Paso, Texas.—It is reported that the Arizona & New Mexico Railroad Co. is considering an extension to El Paso from its present terminus, Clifton, Ariz. The distance is 240 miles. James Colquhoun at Clifton is president of the company.

El Paso, Texas.—It is reported that the Chicago, Rock Island & Texas Co. is making surveys for a line through Dickens and Greer counties to El Paso. J. S. Peter at Fort Worth is chief engineer.

Ensley, Ala.—Messrs. W. J. Oliver & Co. of Langley, S. C., have secured the contract for building twenty miles of the Ensley Southern division of the Southern Railway. It is understood that the firm will let a number of sub-contracts. Work is to begin immediately.

Fayetteville, Ark.—It is reported that the North Arkansas & Western Railroad Co. has graded its line between Fayetteville and Prairie Grove, Ark., and that tracklaying will begin immediately. W. A. Bright at Little Rock is president of the construction company. John M. Pittman at Prescott, Ark., is president of the railroad company. The line is to be built between Fayetteville and Tahlequah, I. T., a distance of seventy miles.

Galveston, Texas.—The Galveston, Houston & Northern Railroad Co. has begun the work of grading for a branch to reach the terminals being completed on the harbor. This road is now a portion of the Southern Pacific system, and furnishes the Southern Pacific an entrance into Galveston.

Grantsville, Md.—It is reported that the firm of Jennings Bros. is interested in a railroad to be constructed from Grantsville to a connection with the Baltimore & Ohio through a portion of Garrett county. The line will be about twelve miles long. Right of way is now being purchased.

Gurdon, Ark.—The Gurdon & Fort Smith Railway Co. has been formed to build a line between Shawmut, Ark., and Gurdon, a distance of about thirty miles. Among those interested are Thomas Gage of Gurdon and George H. Grayson of Arkadelphia, Ark.

Gurley, Ala.—It is reported that New York parties have become interested in the plan to build a railroad along the Paint Rock Valley, and that S. B. Wharton of Decatur, Ala., is representing them.

Hammond, La.—The Baton Rouge, Hammond & Eastern Railway is now being surveyed between Hammond and Baton Rouge. This line is being promoted by a company of which W. R. Watson is president.

Harrisonburg, Va.—It is announced that the Chesapeake & Western Railroad has been secured by a syndicate which includes DeWitt Smith, 50 Broadway, New York, also W. H. Hall of the same city. It is reported that in connection with the transfer the line may be extended from its present terminus into West Virginia, as originally intended.

Hollins, Ala.—The Sample Lumber Co., it is reported, has let a contract for constructing about eight miles of railroad to C. D. Smith & Co. of Birmingham, Ala. John L. Kaul is manager of the lumber company.

Independence, Va.—The people of Grayson county, Virginia, will vote July 12 on the question of issuing \$150,000 in bonds in the interest of the Grayson & Independence Railroad, proposed from Independence to a connection with the Norfolk & Western system.

Jellico, Tenn.—The Commercial Club of Louisville has subscribed \$50,000 in aid of the extension of the Southern Railway from Burgin to Jellico by way of Lancaster, Ky., a distance of eighty-five miles. W. H. Wells at Washington is chief engineer.

Knoxville, Tenn.—Work has begun upon the improvements to be made by the Southern Railway Co. on its division between Asheville and Knoxville. The contract has been let to the McArthur Bros. Company of Chicago.

Little Rock, Ark.—Commercial bodies of Mena, Little Rock, Hot Springs and Paris, Texas, are forming plans to insure the extension of the Little Rock & Hot Springs Western road to Paris. S. W. Fordyce is president of the railroad company.

Little Rock, Ark.—It is announced that the Choctaw, Oklahoma & Gulf Railroad Co.

has been considering reports of the feasibility of an extension from Weatherford to Amarillo, Texas, and that it will probably be built. The line has already been surveyed.

Mobile, Ala.—It is announced that the Mobile, Jackson & Kansas City Company has let the contracts for a five-mile extension of its line to C. D. Smith & Co. of Birmingham. F. B. Merrill at Mobile is general manager of the railroad company.

Newberne, N. C.—It is reported that D. H. Abbott of Raleigh, N. C., and J. C. Brown are interested in a company which proposes building a railroad from Newberne to Bayboro through a portion of Pamlico county. It is proposed to construct a branch to Vandemere, also one to Oriental, N. C. The road from Newberne to Bayboro would be eighteen miles long, while the other branches referred to would be twenty-one miles in length.

Newburg, W. Va.—It is reported that the Baltimore & Ohio has completed surveys for a branch about four miles long to reach coal lands near Newburg. J. M. Graham at Baltimore is chief engineer.

New Orleans, La.—The city authorities have decided to make a survey for the proposed belt line along the water front and in the suburbs. City Engineer Hardee is in charge.

Paris, Texas.—It is announced that work is now under way upon a railroad between Paris and a point on the Red river at what is called Hook's Landing. The road will be about thirty-five miles in length.

Perryville, Md.—It is reported that the plan to build the line from Reading, Pa., to a point on Chesapeake bay near Perryville is to be carried out in the near future, and that surveys are to be made immediately. The promoting company is termed the Reading, Lancaster & Baltimore Railroad Co., and is capitalized at \$3,000,000. Sidney C. Long of Baltimore is interested.

Petersburg, Va.—It is announced that surveys have been completed for the proposed line between Petersburg and Claremont. Frederick Leavenworth of Petersburg is engineer in charge.

San Angelo, Texas.—It is announced that arrangements are being made with the Kansas City, Mexico & Orient Railway Co. to build its line by way of San Angelo, and to complete the road partly constructed between San Angelo and Sweetwater, Texas. A. E. Stillwell at Kansas City is president of the railroad company.

Schuyler, Va.—J. W. Foster, general manager of the Virginia Soapstone Co., writes the Manufacturers' Record that the electric railroad recently referred to will be about four miles long, extending from Rockfish Station, on the Southern Railway, to the company's plant. All of the necessary rails and other equipment have been secured.

Shreveport, La.—The extension of the Missouri, Kansas & Texas Railroad to a connection with the Sherman, Shreveport & Southern is practically completed, and train service will soon be placed in operation.

Stephenville, Texas.—The Houston & Texas Central Company has made a proposition to the business men of Stephenville to extend its line to the town if a bonus of \$20,000 is raised. Charles Hamilton at Waco is general manager.

Tampa, Fla.—It is reported that the scheme to build a railroad from Tampa to Charlotte Harbor has been revived, and that a survey which was made of the route some time ago has been secured by the promoting company.

Thomasville, N. C.—M. L. Jones and J. R. Blair of Troy, N. C., are interested in the plan to build a railroad from Thomasville to a point on the Yadkin river.

Warren, Texas.—The Warren & Corsicana Pacific Railroad has been completed and opened for operation between Warren and Campwood, a distance of eighteen miles. J. I. Campbell is president of the company.

Waycross, Ga.—The Waycross Air Line Railway Co. expects to complete its extension from Douglas to Fitzgerald by October 1. J. E. Wadley at Waycross is president of the company.

Street Railways.

Asheville, N. C.—The Asheville Street Railway Co. is considering the extension of its electric line to Biltmore.

Atlanta, Ga.—The Atlanta Rapid Transit Co. has secured authority to construct its proposed line on Peachtree street and other thoroughfares in the city. C. J. Simmons is president of the company.

Bristol, Tenn.—The Bristol Belt Line Railway Co. has secured a franchise to build its proposed electric line. George L. Carter is interested.

Greensboro, N. C.—The Gullford Power Co. has secured a franchise to construct a street railroad in connection with an electric-light plant.

Little Rock, Ark.—The Little Rock Traction & Electric Co. has applied for a franchise to build a trolley line on certain of the city streets. This company recently purchased the present street-railway system. J. A. Woodson is one of the directors.

Little Rock, Ark.—Mrs. James R. Miller has applied for a franchise to construct a street railroad in the city. She is represented by E. W. Kimball.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Boiler.—Dudley Lumber Co., Granite Falls, N. C., wants to buy 50-horse-power boiler.

Boiler.—Wanted—Locomotive boiler, second-hand, 75 horse-power, must pass insurance inspection eighty pounds working pressure. Address Geo. R. Collins, Asheville, N. C.

Boiler and Engine.—See "Steam-power Plant."

Boiler and Engine.—See "Oil-mill Machinery."

Boiler and Piping.—Treasury Department, Washington, D. C., will receive sealed proposals until June 26 for installation of boilers and piping in United States custom-house at St. Louis, Mo. Specifications and plans can be obtained upon application to custodian of building. Each proposal must be accompanied by certified check for \$600. Bond required and usual rights reserved; H. A. Taylor, assistant secretary.

Boilers.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will receive sealed proposals until 2d of July for construction and placing of new boilers for United States Treasury building in accordance with drawings and specifications, which will be furnished by the supervising architect.

Bridge.—Bids will be opened July 5 for construction of steel bridge across Pearl river at Monticello, Miss., according to plans, etc., on file in chancery clerk's office. Address W. H. Speights, clerk.

Broom Machinery.—G. Pryor, Bristol, Tenn., wants to correspond with manufacturers of broom machinery.

Building Materials.—Greenville Knitting Mills, W. S. Atkins, secretary and treasurer, Greenville, N. C., wants to purchase building materials.

Building Materials.—Southern Cotton Oil Co., L. W. Haskell, manager, Savannah, Ga., will want lumber, brick, tanks and pipes.

Button Machinery.—J. H. Kinzie, Savannah, Ga., wants to communicate with manufacturers of pearl-button machinery.

Cornmeal Mill.—T. J. McCartney, Thomasville, Ga., wants a small mill to grind cornmeal and feed, including power.

Cotton Mill.—Humboldt (Tenn.) Cotton Mills will want to contract for complete 3500-spindle and 100-loom cotton factory. Address J. K. Jarrell or C. H. Ferrell.

Cotton-mill Machinery.—Row & Hopple, Senola, Ga., want addresses of manufacturers of machinery for making cotton batting.

Cotton-mill Machinery and Supplies.—Park Mills, La Grange, Ga., wants second-hand spooler of about 80 to 100 spindles, second-hand twistors of about 600 spindles, and second-hand twister bobbins and spools.

Elevator.—H. Stevens' Sons & Co., Macon, Ga., are in the market for hand elevator with platform about five feet square with about twenty feet travel, to have only two track posts; second-hand will answer.

Engine.—Independence Water-Works Co., Independence, Mo., wants prices on second-hand 2,000-gallon capacity high-pressure compound pumping engine to work against a pressure of 300 pounds.

Excelsior Machinery.—John M. Lewis,

Richmond, Va., wants addresses of manufacturers of excelsior machinery.

Fence.—Proposals are requested by the United Railways & Electric Co. of Baltimore, Md., for the construction of 3000 feet of ribbon wire fence. For further information address D. B. Banks, chief engineer, 213 East German street.

Flour Mill.—Edward Butler, Mountain City, Tenn., wants to correspond with manufacturers of roller-mill machinery.

Hat Machinery.—Henry Bermann, South Boston, Va., wants to correspond with manufacturers of hat machinery.

Heating and Ventilating.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open proposals July 9 for furnishing the heating and ventilating apparatus complete in place for the United States custom-house and post-office building at Bristol, Tenn., in accordance with drawings and specifications, copies of which may be obtained at above office or at office of superintendent at Bristol.

Heating Apparatus.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will receive sealed proposals until 28th of June for all labor and material required for alterations in heating and ventilating apparatus of the United States custom-house and postoffice at St. Louis, Mo., in accordance with drawings and specifications, copies of which may be had at above office or at office of custodian at St. Louis, at discretion of supervising architect.

Ice Machinery.—H. M. Ayer, Florence, S. C., wants information regarding the establishment of ice plant.

Knitting-mill Machinery.—The Greenville Knitting Mills, W. S. Atkins, secretary and treasurer, Greenville, N. C., wants to purchase machinery for the manufacture of underwear.

Knitting-mill Machinery.—William Gray, Dadeville, Ala., wants to correspond with manufacturers of knitting-mill machinery.

Laundry Machinery.—H. A. Stewart, Munford, Ala., wants addresses of manufacturers of steam-laundry machinery.

Machine Tools.—See "Oil-mill Machinery."

Machine Tools.—W. H. Horne, Rocky Mount, N. C., wants prices on second-hand planer, drill press and two lathes, one for six or eight-inch swing and one larger, from 40 to 50-inch, with 14-foot bed or longer.

Motor.—See "Pipe Cutter."

Oil Mill.—Manning Oil Mill & Illuminating Co., Frank P. Ervin, manager, Manning, S. C., wants bids on a 40-ton cottonseed-oil mill before July 1.

Oil-mill Machinery.—Box No. 124, Atlanta, Ga., is in the market for second-hand set 36-inch cottonseed crushing rolls, steam cake former (standard), 14x36-inch Corliss engine, engine lathe about 24-inch swing, six to ten feet between centers; 100-horse-power boiler and fixtures.

Pipe Cutter.—John F. Riley's Foundry and Machine Works, Charleston, S. C., is in want of a small pipe cutter to cut up to three inches and a small motor to run same, new or second-hand.

Plumbing, etc.—Office of constructing quartermaster, No. 419 North Washington street, Alexandria, Va., will receive sealed proposals in duplicate until July 13 for plumbing, heating and electric wiring in six sets of officers' quarters and two sets of barrack buildings to be erected at Fort Washington, Md. Information regarding plans and specifications may be obtained on application; Abe S. Bickham, major and quartermaster.

Pulleys, etc.—See "Steam-power Plant."

Railway Equipment.—Cane Belt Railroad Co., W. T. Eldridge, general manager, Eagle Lake, Texas, will purchase about thirty-five miles of 40-pound steel rails and seventy-five flat cars and twenty-five box cars.

Refinery.—See "Building Materials."

Sewerage.—W. E. Thomas, clerk, Roanoke, Va., will receive sealed proposals until July 3 for furnishing the materials and labor for construction of a number of sewers, etc., in accordance with plans and specifications on file in office of J. H. Wingate, city engineer.

Soap Machinery.—H. A. Stewart, Munford, Ala., wants addresses of manufacturers of soap machinery.

Steam-power Plant.—A. M. Price, Lincoln, N. C., is ready to receive bids on a 200-horse-power steam plant complete, with shafting, hangers, pulleys, etc.

Telephone Equipment.—Leon Hebb, Bartow, Fla., wants addresses of manufacturers of telephones and supplies.

Umbrella Machinery.—A. F. Liebman, 28 Peachtree street, Atlanta, Ga., wants to cor-

respond with manufacturers of umbrella and parasol machinery.

Water-wheel.—The Dudley Lumber Co., Granite Falls, N. C., wants prices on a water-wheel to work under a 30-foot head.

Water-works.—The city of Greensboro, N. C., will want bids on construction of a complete system of water-works. Address "The Mayor."

Wire.—Scott Bros., 70-72 Franklin street, New York city, want the addresses of manufacturers of cooper wire.

TRADE NOTES.

Saw-Mill Bargain.—A complete saw-mill, with 25-horse-power boiler and engine, is offered for sale by A. E. Cox, Room 8, Bliss Building, Washington, D. C.

Woodworking Machinery.—Manufacturers on the lookout to secure good second-hand woodworking machinery are advised to send for list to W. T. Tiller of Emporia, Va.

Pumps, Engines, etc.—Messrs. Rainer & Williams, 635 Canal street, Chicago, Ill., wants to sell some second-hand boilers, engines, centrifugal pump and other machinery. Send for lists.

Want a Corliss Engine?—Any user of power wanting to buy a second-hand Corliss engine of 500 horse-power or a pair of engines of 1200 horse-power may obtain specifications and quotations on such machines by addressing S. L. Holt & Co. of 67 Sudbury street, Boston, Mass. The firm also offers several other engines, single models.

Opportunity in Woodworking.—An opportunity for an experienced manufacturer of furniture, wagons, wheels and kindred goods is offered in Virginia. A party with several thousand dollars capital, which he is willing to invest in this direction, can hear of advantages by addressing W. S. Goodwyn of Emporia, Va. The location in view for the enterprises is near to plentiful supplies of raw material and to water-power.

Labor-Saving Grate Surface.—Boiler users on the lookout for improved devices designed to increase efficiency and economize the cost of operation number many who do not know of the merits of the "Glenmore Patent Rocking and Dumping Grate Surface." This device has proved its value in practical use during the past several years, and those unacquainted with its qualities should investigate them. Briefly, it may be said that durability, economy in fuel and labor saving will be found highly served by this grate surface. And for full particulars the manufacturer may be addressed, the P. J. Conroy Iron and Brass Works, 411 Island avenue, Philadelphia, Pa. Late shipments of this grate surface were to the Ebbitt House, Washington, D. C.; P. A. Mahaney, Washington, D. C., and T. C. Basshor Co., Baltimore, Md.

Helping Each Other.—In 1897 the employees of the H. Mueller Manufacturing Co., assisted in their efforts by members of the company, organized an association for mutual benefit. Up to this time the plans then formed have been carried out successfully, and protection has been afforded in cases of sickness, disability and death. Starting with a membership of thirty-two, the association has now more than 200 persons on its roll. These employees will have their annual picnic and feast on June 23. The H. Mueller Manufacturing Co. is one of the industrial establishments of this country that takes an interest in the welfare of its employees and gives them practical aid towards a contented life. The company's trade-mark "H-M" is well known to users of water and gas-tapping machines, water-pressure regulators, stop and waste cocks, check and waste cocks and other water and gas-works and plumbers' supplies. The manufacturing plant at Decatur, Ill., is one of the largest of its class.

All Kinds of Machinery.—The increasing purchases of machinery of all kinds throughout the industrial world, and especially in the South, are affording a rapidly-growing business for the representative machinery establishments. Among these latter those who handle and manufacture a general line of machinery of all classes find themselves enabled to equip various kinds of plants throughout. Or they can furnish any portion of the machinery equipment that is desired. The Western machinery companies are seeking Southern business in many practical ways, and are successfully competing with other sections of the country. Messrs. A. L. Dawson & Co. of 27 West Washington street, Chicago, Ill., intend to put forth strenuous efforts to book a goodly share of the Southern machinery trade, and

inquirers in any department of mechanical apparatus are solicited to address them. The firm handles engines, boilers, contractors' machinery, laundry machinery, gas and gasoline engines and a general line of machinery.

Professional Appraisal.—Modern methods are constantly introducing ways and means of facilitating transactions in all avenues of the business world. Accounting, auditing, appraising and kindred professional companies have entered the field and developed a large clientele that constantly increases. Appraisal companies especially offer their services in the event of destruction of property by fire where insurance is held, their services being of such a nature as to greatly facilitate the settlement of insurance policies. It is well known, and to manufacturers particularly, that the greatest annoyance caused in fire losses in which insurance is in force is the delay usually arising to prevent a resumption of work. The American Appraisal Co. of 507 Matthews Building, Milwaukee, Wis., has earned an enviable reputation in its department of finance, and is receiving from time to time strong letters of recommendation from those who have benefited by its services. Those who are interested in professional appraisal are invited to correspond.

Keystone Lubricant.—The satisfactory operation of machinery depends to a considerable extent on the lubricant used. Therefore users of machinery of various kinds take care when selecting what lubricant they shall apply to their equipment. The reduction of friction and cooling of a journal requires for effectiveness the best possible lubricant that the market affords. Such an article is found in the "Keystone Lubricant," manufactured by the Keystone Lubricating Co. of Twentieth and Allegheny avenue, Philadelphia, Pa. This lubricant has been thoroughly tested by many users of engines of all kinds, owners of steamboats, railway equipment, electrical machinery, woodworking equipment and various other classes of machinery, and they have found it to give the highest satisfactory service. "Keystone Lubricant" is pure, economical, safe and clean; its consistency is just right, and a small quantity will minimize friction and feeds only when the machinery is in motion. Send for further particulars if you want an ideal lubricant.

Free Your Boiler of Scale and Sediment.—Steam-power users are well aware of the havoc that can be created by scale and sediment in their boilers. The water generally used by manufacturers contains carbonate of lime, sulphate of lime, carbonate of magnesia and other chemicals that cause a hard scale to form on the inner surface of the boiler and around the flues. This being a poor conductor of heat, aside from the dangers involved, fuel is wasted to an extent that one would hardly believe possible. But the exact reports of experienced steam-plant operators have shown that in a boiler with one-fiftieth-inch scale 5 per cent. more fuel is required than when boiler is clean, and so the required fuel increases in a ratio that makes it 150 per cent. more when there is one-half-inch scale than when boiler is clean. The use of boiler compounds to avoid scale is now quite general. The International Boiler Compound Co. of 325 Sixty-second street, Englewood, Chicago, Ill., has been one of the most successful manufacturers in the compound line. In offering its compound the company does so with the fullest confidence in its superior merits as a scale solvent, and its adaptability to disintegrate the scale-forming ingredients in a wider range of water than any compound in the market. Boiler users may obtain interesting literature upon application.

Self-Lubricating Packing.—Users of hydraulic packing or of packing for steam find that the requirements of a perfectly satisfactory packing are not too frequently found. When manufactured with the utmost care, of the best possible obtainable materials for the purpose, and on the latest approved plans, packing becomes one of the most useful of mechanical supplies. Of course different uses for packing require different shapes and dimensions. Messrs. Clement Restein & Co. of 139 North Second street, Philadelphia, Pa., have been one of the most successful manufacturers in supplying packing to consumers. They offer a line of packings that apply to all purposes for which they have ever been used. Their self-lubricating packings have been especially successful. The "Bell Brand Packing" is made from the finest quality of pure arch-angle extra long-fiber flax, soft as silk, and possessing great strength; it contains pure lubricants of the highest grade, which preserve and do not corrode, clog or gum machinery; it is made square, exactly fitting

the stuffing-boxes, and has just the elasticity required. Another brand of the same firm is "Red Seal." All the brands of packing made by Restein & Co. are selling in increasing quantities, and the demand lately has caused the firm to obtain an additional building to double its facilities and enable it to fill orders with its accustomed promptness. Users of packing are invited to send to this Philadelphia house for catalogues.

Wastefulness of Chimney Draught.—A recent editorial discussion of the various methods for utilizing waste heat considers, among other features, the wastefulness of producing draught by the ascent of heated air in a chimney. It was stated that, "taking the boiler as the wasteful member in a steam plant, its efficiency varies from 60 per cent. in a bad boiler to 80 per cent. in a very good one, these proportions of the heat produced by the combustion of the coal being realized in steam available for the engine in each case. The difference may be said to go up the chimney. Much of the waste heat might be caught and utilized, but there are reasons why it is not. In the first place, the gases must be hot when they go into the chimney, or there will not be a draught. As a matter of fact a draught got in this way is the most expensive possible, save one. The exception is a steam jet in the chimney. A fan can be run for about one-tenth of the power represented by the waste heat required to command a good draught. A tall chimney will cost from \$5000 to \$25,000—very much more than will a fan plant. But the fan is not used and the chimney is, largely because it is essential to discharge the products of combustion high up in the air over the roofs of surrounding houses. This necessity must be taken into account in so far as factories are concerned, but it does not hold good of steamships, yet we believe that in most cases a chimney stack 100 feet high would be sufficient, because with a fan combustion could be more easily controlled than is possible with a chimney, to the end of preventing the giving off of smoke." The B. F. Sturtevant Co. of Boston can furnish interesting information concerning forced draught.

TRADE LITERATURE.

Cross-Arms, Pins and Brackets.—The past several years has seen an especial activity prevailing in the South in the establishment of telephone and telegraph lines. The numerous wood parts of the equipment necessary in constructing such systems has furnished a new business to woodworkers. This is the manufacture of cross-arms, pins and brackets, wood thimbles, all kinds of electrical moldings, etc. The Central Manufacturing Co. of Chattanooga, Tenn., has developed an extensive trade in this department, and its product is well known as of the highest grade. Price-lists may be obtained on application.

Pure Water for Steam-Making.—An important and far-reaching question is to secure pure water for locomotives and other steam boilers. The solving of this question has required much study and many experiments on the part of those who have attempted it, but success was attained. Equipments for purifying water that is to be boiled for steam to be used as power have been introduced successfully. The Industrial Water Co. of 15 Wall street, New York, is one of the leading constructors in this line, and has just issued a booklet that every steam-user should read. The booklet contains the articles of C. Herschel Koyl that were recently published in the Railroad Gazette. "The Work of Railroad Men on the Problem of Pure Water for Steam Boilers" is the booklet's title.

Mechanical-Draft Literature.—The rapid strides which mechanical draft is making as a substitute for chimney draft are well exemplified by the statement recently made by the B. F. Sturtevant Co. of Boston—the pioneers in the introduction of the fan in the place of a chimney—to the effect that its sales of apparatus for stationary boiler plants last year were over three times those for the year before, and that they now amount to nearly 1000 horse-power per day, about equally divided upon stationary and marine plants. It is also interesting to note that in a number of the technical schools of the country experimental mechanical-draft apparatus has been installed principally for the purpose of instruction, and that numerous graduating theses are concerned with the investigation of this subject. Literature on the subject can be supplied to those interested by the company.

Lubricators.—The operation of machinery in the most satisfactory and economical manner requires, among other qualities, that the

equipment shall be lubricated effectively. Automatic lubrication has consequently been introduced into the manufacturing world, and makers of different devices for such lubrication compete for the orders of the factories. In this connection it is desired to call attention to the "Detroit Sight-Feed Lubricators," made by the Detroit Lubricator Co. of Detroit, Mich. This company's devices have been successfully used for more than twenty years in many factories, and are constantly being improved and adapted to new machinery that is introduced. The company has issued an illustrated catalogue of these lubricators, also of its oil pumps, glass body oilers, oiling devices, valves, etc. All these goods possess the same characteristics of excellence that have pleased users for nearly a quarter of a century. Send for catalogue.

Do You Use Vertical Boilers?—If you do, there is a leaflet available that will give you some information of interest, that is, it will be of interest if you want to increase the efficiency of your plant and at the same time decrease consumption of fuel. Users of vertical boilers know what a large quantity of the useful effect of coal passes out of the chimney. Why not make the outside shell of the boiler a heating surface and utilize the hot gases before they reach the chimney and increase the steaming capacity twofold? There are so many advantages to such a system that the P. J. Conroy Iron and Brass Works of 411 Island avenue, Philadelphia, Pa., is manufacturing cast-iron casing rings and top covers, so that a boiler can be encased in the manner referred to. The expense is small; in fact, is trifling as compared with the results obtained. Write the manufacturer for leaflet telling of his base for vertical boilers with rocking and dumping grate and other iron and brass specialties.

For Hoisting and Conveying.—Modern hoisting and conveying equipments are employed largely in construction work, in mines and quarries, for discharging vessels and for transferring cargo between ships at sea. These modern machinery installations have greatly facilitated work in some of the most important dry-dock, dam and canal work done in this country, and numerous manufacturing and industrial establishments have also used them largely. The Lidgerwood Manufacturing Co. of 96 Liberty street, New York, manufactures the "Lidgerwood Cableway," a hoisting and conveying device that has been extensively used, and for which there is now a growing demand. This apparatus is well known throughout the country, and it is constructed and set up in various ways to provide for the conditions that may exist in specified cases. The company has issued a book devoted to an exposition and illustration of its cableway. Interested parties may obtain copy on application to company.

Havens of Rest and Recreation.—Midsummer is fairly in sight now, and it behooves the seeker after rest and recreation to give thought to a selection of an outing trip. Those who have already made their decisions may possibly be unchangeable, but before finally making up one's mind it is well to consider what Maryland and Virginia offer in this direction. The two States first met with south of Mason and Dixon's line contain a multitude of picturesque spots and areas of land and water that present those charming combinations of nature that the pleasure-seeker or rest-seeker is most desirous of enjoying. Not only for them, but for the permanent settler, do the eastern shores of Maryland and Virginia offer ideal localities. Lovers of nature will find in the section of country in question many gleaming rivers, streams and brooks threading the interior; game of the forest, field and water abounds, and such exhilarating exercises as boating and bathing may be indulged in to the heart's content. Bicyclists will find many roads of the character that makes the face of the cyclist beam with anticipated pleasure, and camerists will gaze upon an abundance of scenery that, both landscape and waterscape, is beautiful to behold and therefore well suited for "snap shots." In all this country the climate is health-giving to a high degree. The large bodies of inland salt water, the close proximity of the ocean and the tempering sea breezes are a combination that make for mild winters and temperate summers. The Baltimore, Chesapeake & Atlantic Railway Co. reaches by its boats and railway the delightful sections referred to, including Maryland's seashore resort, Ocean City. The railway's passenger department has issued a booklet descriptive and illustrative of the country traversed, copy of which may be obtained on application to T. Murdoch, passenger agent, 241 South street, Baltimore, Md.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	101	103
Aiken Mfg. Co. (S. C.)	95	100
Anderson Cotton Mills (S. C.)	128	132
Arkwright Mills (S. C.)	122	126
Augusta Factory (Ga.)	85	90
Avondale Mills (Ala.)	80	83
Belton Cotton Mills (S. C.)	106	110
Bennettsville Mfg. Co. (S. C.)	115	120
Cannon Mfg. Co. (N. C.)	165	200
Clifton Mfg. Co. (S. C.)	195	198
Courtenay Mfg. Co. (S. C.)	118	120
Darlington Mfg. Co. (S. C.)	99	102
Delgado Mills (N. C.)	102	103
Dilling Cotton Mills (N. C.)	109	114
Engle & Phenix Mills (Ga.)	107	110
Edna Cotton Mills (N. C.)	99	100
Enoree Mfg. Co. (S. C.)	123	126
Enterprise Mfg. Co. (Ga.)	124	140
F. W. Poe Mfg. Co. (S. C.)	130	133
Gannery Mfg. Co. (S. C.)	100	101½
Granby Mills (S. C.)	168	170
Grantville Mfg. Co. (S. C.)	102	103
Greenwood Cotton Mills (S. C.)	102	103
Grendel Mills (S. C.)	103½	105
Henderson Cotton Mills (N. C.)	120	125
Honrietta Mills (N. C.)	210	220
Indian Head Mills (Ala.)	105	107
John P. King Mfg. Co. (Ga.)	105	107
Laurens Cotton Mills (S. C.)	140	151
Langley Mfg. Co. (S. C.)	116	120
Lockhart Mills (S. C.)	110	112
Loray Mills (N. C.)	99	100
Lynchburg Cotton Mill Co. (Va.)	125	130
Lynchburg Cot. Mill Co. (Va.) Pfd.	145	150
Mills Mfg. Co. (S. C.)	145	150
McColl Mfg. Co. (S. C.)	94	100
Modena Cotton Mills (N. C.)	140	150
Newberry Cotton Mills (S. C.)	122	128
Odell Mfg. Co. (N. C.)	115	120
Orr Mfg. Co. (S. C.)	104	105
Paclet Mfg. Co. (S. C.)	250	250
Pelzer Mfg. Co. (S. C.)	194	198
Piedmont Mfg. Co. (S. C.)	194	198
Raleigh Cotton Mills (N. C.)	122	130
Richland Cotton Mills (S. C.)	100	102
Roanoke Mills (N. C.)	108	111
Southern Cotton Mills (N. C.)	100	102
Spartan Mills (S. C.)	125	145
Trion Mfg. Co. (Ga.)	125	150
Union Cotton Mills (S. C.)	132	135
Union Cotton Mills (S. C.) Pref.	104	104
Victor Cotton Mills (S. C.)	114	117
Warren Mfg. Co. (S. C.)	85	90
Warren Mfg. Co. (S. C.) Pref.	102	105½
Wilmington Cot. Mills (N. C.) Pref.	110	115
Wiscasset Mills (N. C.)	120	125

Elected Cashier.

Mr. William Ingle has been elected cashier of the Merchants' National Bank of Baltimore, succeeding E. H. Thomson, who has resigned. Mr. Ingle has been assistant cashier of the bank, and has been connected with it in various capacities for a term of years.

New Corporations.

The Mutual Building and Loan Association of Baltimore has opened a branch office at Newport News, Va.

The Citizens' Bank has been formed at Clarence, Mo., with \$10,000 capital stock, by J. H. Merritt and others.

Arrangements are being made to open a bank at Collinsville, Texas, which will begin business about July 15.

The Farmers' Bank has been organized at Unionville, Mo., with \$15,000 capital stock by T. B. Neff and others.

The Paddock-Gray Co. has been formed at Fort Worth, Texas, for financial purposes by B. B. Paddock and others.

W. A. Mauney is president of the national bank recently organized at King's Mountain, N. C., with \$25,000 capital stock.

Charles B. Penrose and George Stewart Brown are interested in the Homebuyers' Building Association, recently incorporated in Baltimore.

The Greenbrier Valley Bank has been formed at Alderson, W. Va., by Isaac L. Mann of Bramwell, L. E. Johnson of Alderson and others.

A dispatch from Fitzgerald, Ga., announces that a national bank may be organized in that town in the near future by local business men.

Two banks have recently been organized at Andalusia, Ala., one of which is a national institution. In both instances

new buildings are to be constructed for the corporations.

The Citizens' Bank, recently organized at Abbeville, S. C., has elected S. P. Laster, president; J. T. Floyd, vice-president, and George M. Taylor, cashier.

The Home National Bank has been organized to begin business at Baird, Texas, with \$25,000 capital stock. T. E. Ponnell is president, and F. Lone, cashier.

The First National Bank, recently organized at Arcadia, Fla., with \$30,000 capital stock, has elected Ziba King, president; Albert Carlton, vice-president, and C. C. Chollar, cashier.

New Securities.

Bids will be received until June 25 for the issue of \$80,000 in 4 per cent. bonds to be sold at Newberne, N. C.

Local investors have purchased the issue of \$165,000 in 5 per cent. bonds of the fifth levee district of Louisiana.

Bids will be received until June 30 by M. L. Ogden, Jr., for the issue of \$200,000 in 4 per cent. bonds of Owensboro, Ky.

F. M. Welch, mayor, will receive proposals until June 27 for the issue of \$73,000 in 5 per cent. bonds of Alexandria, La.

Local investors have purchased the issue of \$3000 in 6 per cent. bonds of Anson county, North Carolina, paying 109.039.

The town of Rochelle, Ga., has decided to issue \$10,000 in bonds for improvements. The mayor will give further particulars.

Bids will be received until June 25 for the issue of \$10,000 in bonds of Statesboro, Ga. J. W. Wilson at Statesboro may be addressed.

The people of Port Gibson, Miss., have voted in favor of issuing \$12,000 in bonds for improvements. The town clerk will give further details.

The State authorities have approved of an issue of \$7900 of Karnes county, Texas. The county court may be addressed at Helena, Texas.

The town of Ruston, La., has voted a tax of five mills to guarantee a bond issue of \$25,000 for improvements. The mayor will give further particulars.

The issue of \$10,000 in bonds of Pulaski, Tenn., will be sold on June 25. It will bear interest at 6 per cent. W. A. Roberts, recorder, may be addressed.

The people of Lawrence county, Missouri, have voted in favor of issuing \$50,000 for improvements. The county commissioners may be addressed at Mt. Vernon, Mo.

The city of Alexandria, Va., has decided to issue \$73,000 in bonds for improvements. Bids are to be received until June 27. The mayor will give further information.

James C. Harris may be addressed relative to the issue of \$100,000 in 6 per cent. bonds of Lake county, Tennessee, for which bids will be received until July 14. He may be addressed at Tiptonville.

The people of Victoria county, Texas, have voted in favor of issuing \$45,000 in 5 per cent. bonds for highway improvements. The board of county commissioners may be addressed at Victoria, Texas.

The city of Staunton, Va., has sold \$50,000 in 4 per cent. bonds for refunding purposes to local investors. They are substituted for a similar issue of 6 per cent. bonds and a small floating indebtedness.

Messrs. Steiner Bros. of Birmingham, Ala., have made a proposition to the city authorities offering to purchase at par an amount of 5 per cent. bonds necessary to construct an electric-light plant. The proposition is now under consideration.

The Baltimore County Water & Electric Co. has filed a mortgage for \$1,000,000 in 5 per cent. bonds, with which it pro-

poses to make various improvements. Thomas McGuinness is president of the company and John Hubner of Catonsville, Md., one of the directors.

Arrangements are being made to refund the issue of \$125,000 in 5 per cent. bonds of the city of Manchester, Va., by an issue of 4½ per cent. bonds. It is announced that Messrs. Thomas Branch & Co. of Richmond have agreed to purchase the new issue at par. An ordinance authorizing the issue has been adopted.

Dividends and Interest.

The American Bonding & Trust Co. of Baltimore has declared a semi-annual dividend of 3 per cent.

The Lynchburg (Va.) Cotton Manufacturing Co. has declared a semi-annual dividend of 4 per cent. on its common and preferred stock.

The Canton Co. of Baltimore has re-elected its present officers and declared a dividend of \$1 per share. W. B. Brooks, Jr., is president.

The Northern Central Railway Co. has declared a dividend of 3 per cent. for the six months ending July 15, making 7 per cent. for the year.

The Kentucky Heating Co. of Louisville has declared a stock dividend of 40 per cent. upon its capitalization of \$500,000. It has also declared a quarterly dividend of 1½ per cent.

The Maryland Casualty Co. of Baltimore has declared a semi-annual dividend of 5 per cent. and an extra dividend of 2 per cent., making 12 per cent. in all in dividends for the past year.

The Sloss-Sheffield Steel & Iron Co. has declared a quarterly dividend of 1½ per cent. upon its preferred stock. The last quarterly report of the company shows net earnings of \$372,334, of which \$317,000 are applicable for dividends.

Financial Notes.

W. E. Brown has been selected as president for the bank recently organized at Manning, S. C.

The State of Minnesota has recently purchased \$870,000 worth of Virginia bonds for its school fund.

The Piedmont Savings Bank of Winston-Salem, N. C., has elected D. H. King, president; R. C. Click, vice-president, and L. W. Pegram, cashier.

The finance commissioners of Baltimore have purchased \$114,500 in ground rents upon which the city has been paying 6 per cent; also \$800,000 in city stock for the public sinking fund. The stock is of the 1940 city loan at 3½ per cent.

Reduced Rates to Cincinnati and Return via Pennsylvania Railroad.

For the Annual Convention of the Baptist Young People's Union of America, to be held at Cincinnati July 12-15, the Pennsylvania Railroad Co. will sell excursion tickets from all stations on its line to Cincinnati at one fare for the round trip. Tickets to be sold and good going July 10 to 13, inclusive, and to return until July 17, inclusive; but if tickets be deposited with the Joint Agent at Cincinnati on or before July 14, and if fee of fifty cents be paid, the return limit will be extended to August 10, inclusive.

Reduced Rates to Charleston, S. C., via Pennsylvania Railroad.

For the meeting of the National Educational Association at Charleston, S. C., July 7-13, the Pennsylvania Railroad Co. will sell excursion tickets from all stations on its lines to Charleston at the rate of one fare for the round trip, plus \$2. Tickets to be sold July 5 to 8, inclusive, and to be good to return until September 1, inclusive. On the return trip stop-over will be allowed at Washington on deposit of ticket with Joint Agent and on payment of fee of \$1.

TABLE OF CONTENTS.

EDITORIAL:	Page.
Time to Shut Up Shop.....	363
Developing the Warehouse System.....	363
Testing the Boycott.....	363
Faith in the South.....	363
The Voice of Southern Labor.....	363
Character the Basis of Success.....	364
Time for Serious Thought.....	364
The South's New Spirit.....	364
The Iron Trade Puzzling.....	365
Export Shipments Fair.....	366
Demands for Iron.....	366
Jones & Laughlins, Limited.....	366
Focused on the South.....	367
Eastern Iron Markets.....	367
The Iron and Metal Trades.....	367
FOREIGN TRADE:	
Twelve Months' Commerce.....	367
Galveston's Export Trade.....	368
Belgium Needs Coal.....	368
Turbine Wheels in Germany.....	368
To Import Fruit.....	368
Completing Terminals.....	368
Notes.....	368
Southern Hardware Jobbers.....	368
Arkansas Hardware Dealers.....	368
Purchase of a Resort.....	368
RAILROADS:	
The Kansas City, Mexico & Orient.....	368
Railroad Building in Mississippi.....	368
An Important Extension.....	368
Important Decision.....	369
Vegetables by the Railroad.....	369
Extension to Paris.....	369
Kansas City Southern Improvements.....	369
Terminals at Galveston.....	369
Another Contract Let.....	369
An Artistic Production.....	369
Chesapeake & Western.....	369
Fattening Cattle at Memphis.....	369
Jellico to Burgin.....	369
Order for Pullman Cars.....	369
Railroad Notes.....	369
TEXTILES:	
To Buy Round-Bale Cotton.....	369
African and Asian Cotton.....	370
Building a \$100,000 Cotton Factory.....	370
Another \$100,000 Cotton Mill.....	370
\$100,000 Mill at Humboldt, Tenn.....	370
Textile Notes.....	370
A Canal Exposition.....	370
COTTONSEED OIL:	
Financing Oil Mills.....	370
Cottonseed-Oil Notes.....	371
MECHANICAL:	
Electricity for Flour Mills (Illus.).....	372
Improved Oil-Mill Linter (Illus.).....	372
LUMBER:	
Lumber Market Reviews:	
Baltimore.....	373
Charleston.....	373
Mobile.....	373
Savannah.....	373
St. Louis.....	373
Lumber Notes.....	373
PHOSPHATES:	
Phosphate Markets.....	374
Phosphate and Fertilizer Notes.....	374
Trade Notes.....	374, 379
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	375
Building Notes.....	377
Railroad Construction.....	377
Machinery Wanted.....	378
Trade Literature.....	379
FINANCIAL NEWS:	
Southern Cotton-Mill Stocks.....	380
Elected Cashier.....	380
New Corporations.....	380
New Securities.....	380
Dividends and Interest.....	380
Financial Notes.....	380

Woodworking Machines at Paris.—Thos. P. Egan is now on his way to the Paris Exposition, where he goes to look after the interests of the J. A. Fay & Egan Co. of Cincinnati, of which he is president. The company's elaborate display at Paris includes a complete line of woodworking machinery arranged for the best possible results to investigators. The company has 3000 square feet of space in the United States section.

Reduced Rates to Kansas City via Pennsylvania Railroad.

For the National Democratic Convention, to be held at Kansas City July 4, the Pennsylvania Railroad Co. will sell excursion tickets to Kansas City from all stations on its line at rate of one first-class fare for the round trip. Tickets to be sold and good going July 1, 2 and 3, and to return until July 9, inclusive. These tickets will be good on all trains except the Pennsylvania Limited, and must be used for continuous passage. †